Alaska 1997

sued December 1999

EC97TCF-AK

1997 Economic Census

*Transportation*1997 Commodity Flow Survey





U.S. Department of Commerce Economics and Statistics Administration U.S. CENSUS BUREAU



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Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product estimates, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions. Specific uses of economic census data include the following:

- Policymaking agencies of the Federal Government use the data to monitor economic activity and assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are

published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some covering service trades in 1933. Censuses of construction, manufacturing, and the other business service censuses were suspended during World War

The 1954 Economic Census was the first census to be fully integrated: providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of longterm time series and are available in some large libraries. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the Guide to the 1997 Economic Census and Related Statistics at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the History of the 1997 Economic Census at www.census.gov/econ/www/history.html.

1997 Commodity Flow Survey

GENERAL

The 1997 Commodity Flow Survey (CFS) is undertaken through a partnership between the Bureau of the Census, U.S. Department of Commerce, and the Bureau of Transportation Statistics, U.S. Department of Transportation. This survey produces data on the movement of goods in the United States. It provides information on commodities shipped, their value, weight, and mode of transportation, as well as the origin and destination of shipments of manufacturing, mining, wholesale, and selected retail establishments. The CFS was last conducted in 1993. See the Comparability With the 1993 Commodity Flow Survey table (Appendix A) for a comparison between the 1997 and 1993 surveys. The data from the CFS are used by public policy analysts and for transportation planning and decision-making to assess the demand for transportation facilities and services, energy use, and safety risk and environmental concerns.

This report presents data at the state level. Additional reports will include data for the United States, census regions, divisions, and selected metropolitan areas, as well as selected data on exports and hazardous material shipments.

INDUSTRY COVERAGE

The 1997 CFS covers business establishments in mining, manufacturing, wholesale trade, and selected retail industries. The survey also covers selected auxiliary establishments (e.g., warehouses) of in-scope multiunit and retail companies. The survey coverage excludes establishments classified as farms, forestry, fisheries, governments, construction, transportation, foreign establishments, services, and most establishments in retail.

The industries covered, as defined in the 1987 Standard Industrial Classification Manual (SIC), are listed in the following table:

SIC code	Title
10, ex. 108 12, ex. 124	Metal mining (excluding metal mining services) Coal mining (excluding coal mining services)
13	Oil and gas extraction ¹
14, ex. 148	Mining and quarrying of nonmetallic minerals, except fuels (excluding nonmetallic minerals services)
20	Food and kindred products
21	Tobacco products
22	Textile mill products
23	Apparel and other finished products made from fabrics and similar materials
24	Lumber and wood products, except furniture
25	Furniture and fixtures
26	Paper and allied products
27, ex. 279	Printing, publishing, and allied industries (excluding service industries for the printing trade)
28	Chemicals and allied products
29	Petroleum refining and related industries
30	Rubber and miscellaneous plastics products
31	Leather and leather products
32	Stone, clay, glass, and concrete products
33	Primary metal industries
34	Fabricated metal products, except machinery and transportation equipment
35	Industrial and commercial machinery and computer equipment
36	Electronic and other electrical equipment and components, except computer equipment
37	Transportation equipment
38	Measuring, analyzing, and controlling instruments; photographic, medical and optical goods; watches and clocks
39	Miscellaneous manufacturing industries
50	Wholesale trade—durable goods
51	Wholesale trade—nondurable goods
596	Catalog and mail-order houses

¹We included establishments classified in SIC 13, Oil and Gas Extraction, in the initial coverage of the 1997 CFS. However, because of unresolved industry-wide reporting issues, we have removed shipments from these establishments from our 1997 CFS tabulations. The data collected from these establishments will be used as input to a special report at a later date.

Similarly, because establishments in SIC 13 are responsible for the overwhelming number of shipments classified in SCTG 16, Crude Petroleum, we have removed all shipments with SCTG 16 from the 1997 CFS publication results.

SHIPMENT COVERAGE

The CFS captures data on shipments originating from selected types of business establishments located in the 50 states and the District of Columbia. The data do not cover shipments originating from business establishments located in Puerto Rico and other U.S. possessions and territories. Shipments traversing the U.S. from a foreign location to another foreign location (e.g., from Canada to Mexico) are not included, nor are shipments from a foreign location to a U.S. location. Imported products are included in the CFS at the point that they left the importer's domestic location for shipment to another location. Shipments that are shipped through a foreign territory with both the origin and destination in the U.S. are included in the CFS data. The mileages calculated for these shipments exclude the international segments (e.g., shipments from New York to Michigan through Canada do not include any mileages for Canada). Export shipments are included, with the domestic destination defined as the port of exit from the U.S.

The "Industry Coverage" section of the text lists the SIC groups covered by the CFS. Other industry areas that are not covered, but may have significant shipping activity, include agriculture, government, and retail (other than warehouses and SIC 5961, Catalog and Mail-Order Houses). For agriculture specifically, this means that the CFS did not cover shipments of agricultural products from the farm site to the processing centers or terminal elevators (most likely short-distance local movements), but does cover the shipments of these products from the initial processing centers or terminal elevators onward.

MILEAGE CALCULATIONS

To compute shipment mileages for the 1997 CFS, The Center for Transportation Analysis (CTA) at Oak Ridge National Laboratory (ORNL) developed an integrated, intermodal transportation network modeling system. A secure data site was setup at ORNL to process census-supplied files containing data elements for individual CFS shipment records. Each record contained the ZIP Code of shipment origin and destination, and the mode or mode sequence reported. Each record also contained information on the type of commodity moved, its weight, dollar value and whether containerized or a hazardous material. Export shipments were also identified on the records, along with data on U.S. port of exit and foreign destination city and country. Encrypted data files were transmitted and returned from ORNL after processing, with turnaround of most files on a week-by-week basis. In this manner many shipment-specific data problems encountered by ORNL in their routing procedures were reported back to census in a timely fashion, allowing census to call back some shippers and thereby confirm, correct, or recover missing or otherwise unusable data. The ORNL system computed mileages, by mode, for all single modes and for any reported

multimodal sequence. This was done for any origindestination pair of domestic ZIP Code locations, and for any internal ZIP Code of origin, via U.S. export port, to foreign (export) destination. Mileages between origindestination ZIP Code centroids were computed by finding the minimum impedance path over mathematical representations of the highway, rail, waterway, air, and pipeline networks and then summing the lengths of individual links on these paths. Impedance is computed as a weighted combination of distance, time, and cost factors.

The ORNL multimodal network database is composed of individual modal-specific networks representing each of the major transportation modes—highway, rail, waterway, air, and pipeline. The links of these specific modal networks are the representation of line-haul transportation facilities. The nodes represent intersections and interchanges, and the access points to the transportation network. To simulate local access, test links are created from each five-digit ZIP Code centroid to nearby nodes on the network. For the truck network, local access is assumed to exist everywhere. For the other modes this is not true. Before any test links are created for these modes, a search procedure is used to determine if and where such networks are most likely to provide access to the ZIP Code. For shipments involving more than one mode, such as truck-rail or rail-water shipments, intermodal transfer links are added to the network database for the purpose of connecting the individual modal networks together for routing purposes. An intermodal terminals database and a number of terminal transfer models were developed at ORNL to identify likely transfer points for different classes of freight. A measure of link impedance was calculated for each access, line-haul, and intermodal transfer link traversed by a shipment. These impedances were mode specific and are based on various link characteristics. For example, the set of link characteristics for the highway network included speed impacting factors, such as the presence of divided or undivided roadway, the degree of access control, rural or urban setting, type of pavement, number of lanes, degree of urban congestion, and length of the link. Link impedance measures are also assigned to the local access links. Intermodal transfer link impedances are estimated in terms of the time it takes to move goods through such a transfer. In the case of rail and air freight, intercarrier transfer penalties are also considered in order to obtain proper route selections. A minimum path algorithm is used to find the minimum impedance path between a shipment's origin ZIP Code centroid and destination ZIP Code centroid. The cumulative length of the local access plus line-haul links on this path provides the estimated shipment distance. When rail was involved these shipment distances may be averaged over more than one path between an origin-destination pair.

Mileage Data for Pipeline Shipments

In the tables, we do not show ton-miles or average miles per shipment for pipeline shipments. For most of these shipments, the respondents reported the shipment destination as a pipeline facility on the main pipeline network. Therefore, for the majority of these shipments, the resulting mileage represented only the access distance through feeder pipelines to the main pipeline network, and not the actual distance through the main pipeline network. Pipeline shipments are included in the U.S. totals for ton-miles and average miles per shipment.

DISCLOSURE RULES

In accordance with Federal law governing Census Bureau reports, no data are published that would disclose the operations of an individual firm or establishment.

EXPLANATION OF TERMS

Average miles per shipment. For the 1993 CFS, we excluded shipments of STCC 27, Printed Matter, from our calculation of average miles per shipment. We made this decision after determining that respondents in the 1993 CFS shipping newspapers, magazines, catalogs, etc., had used widely varying definitions of the term "shipment."

For the 1997 CFS, we made numerous efforts throughout our data collection and editing to produce consistent results from establishments shipping SCTG 29, Printed Products. As a result, we have included printed products in the average miles per shipment calculations for the 1997 CFS.

Commodity. Products that an establishment produces, sells, or distributes. This does not include items that are considered as excess or byproducts of the establishment's operation. Respondents reported the description and the five-digit SCTG code for the major commodity contained in the shipment, defined as the commodity with the greatest weight in the total shipment.

Distance shipped. In some tables, shipment data are presented for various "distance shipped" intervals. Shipments were categorized into these "distance shipped" intervals based on the great circle distance between their origin and destination ZIP Code centroids. All other distance-related data in this and other tables (i.e., tonmiles and average miles per shipment) are based on the mileage calculations produced by Oak Ridge National Laboratories. (See the "Mileage Calculations" section for more details.)

Great circle distance. The shortest distance between two points on the earth's surface.

Mode of transportation. The type of transportation used for moving the shipment to its domestic destination. For exports, the domestic destination was the port of exit.

Mode Definitions

In the instructions to the respondent, we defined the possible modes as follows:

- 1. Parcel delivery/courier/U.S. Postal Service. Delivery services, parcels, packages, and other small shipments that typically weigh less than 100 pounds. Includes bus parcel delivery service.
- 2. **Private truck.** Trucks operated by a temporary or permanent employee of an establishment or the buyer/receiver of the shipment.
- 3. For-hire truck. Trucks that carry freight for a fee collected from the shipper, recipient of the shipment, or an arranger of the transportation.
- 4. **Railroad.** Any common carrier or private railroad.
- 5. Shallow draft vessels. Barges, ships, or ferries operating primarily on rivers and canals; in harbors, the Great Lakes, the Saint Lawrence Seaway; the Intracoastal Waterway, the Inside Passage to Alaska, major bays and inlets; or in the ocean close to the shoreline.
- 6. **Deep draft vessel.** Barges, ships, or ferries operating primarily in the open ocean. Shipping on the Great Lakes and the Saint Lawrence Seaway is classified with shallow draft vessels.
- 7. **Pipeline.** Movements of oil, petroleum, gas, slurry, etc., through pipelines that extend to other establishments or locations beyond the shipper's establishment. Aqueducts for the movement of water are not included.
- 8. Air. Commercial or private aircraft, and all air service for shipments that typically weigh more than 100 pounds. Includes air freight and air express.
- 9. Other mode. Any mode not listed above.
- 10. **Unknown.** The shipment was not carried by a parcel delivery/courier/U.S. Postal Service, and the respondent could not determine what mode of transportation was used.

In the tables, we have used additional terms for mode, which we define as follows:

- 1. Air (includes truck and air). Shipments that used air or a combination of truck and air.
- 2. **Single modes.** Shipments using only one of the above-listed modes, except parcel or other and unknown.
- 3. Multiple modes. Parcel, U.S. Postal Service or courier shipments or shipments for which two or more of the following modes of transportation were used:

Private truck For-hire truck Shallow draft vessel Deep draft vessel Pipeline

We did not allow for multiple modes in combination with "parcel, U.S. Postal Service or courier," "unknown," or "other." By their nature, these shipments may already include various kinds of multiplemode activity. For example, if the respondent reported a shipment's mode of transportation as parcel and air, we treated the shipment as parcel only.

- 4. **Other multiple modes.** Shipments using any other mode combinations not specifically listed in the tables.
- 5. Other and unknown modes. Shipments for which modes were not reported, or were reported by the respondent as "Other" or "Unknown."
- 6. **Truck.** Shipments using for-hire truck only, private truck only, or a combination of for-hire truck and private truck.
- 7. **Water.** Shipments using shallow draft vessel only. deep draft vessel only, or Great Lakes vessel only. Combinations of these modes, such as shallow draft vessel and Great Lakes vessel are included as "Other multiple modes."
- 8. **Great Lakes.** In the tables in this publication, "Great Lakes" appears as a single mode. ORNL's transportation network and mileage calculation system allowed for separate mileage calculations for Great Lakes between the origin and destination ZIP Codes (see the "Mileage Calculations" section for more details).

Other Definitions and Terms

Shipment. A shipment (or delivery) is an individual movement of commodities from an establishment to a customer or to another location of the originating company (including a warehouse, distribution center, retail or wholesale outlet). A shipment uses one or more modes of transportation including parcel delivery, U.S. Postal Service, courier, private truck, for-hire truck, rail, water, pipeline, air, and other modes.

Standard Classification of Transported Goods

(SCTG). The commodities shown in this report are classified using the SCTG coding system. The SCTG coding system was developed jointly by agencies of the United States and Canadian governments based on the Harmonized System to address statistical needs in regard to products transported.

Ton-miles. The weight times the mileage for a shipment. The respondents reported shipment weight in pounds, as described below. Mileage was calculated as the distance between the shipment origin and destination ZIP Codes. For shipments by truck, rail, or shallow draft vessels, the mileage excludes international segments. For example, mileages from Alaska to the continental United States

exclude any mileages through Canada (see the "Mileage" Calculations" section for more details). Aggregated poundmiles were converted to ton-miles. The ton-miles data are displayed in millions.

Tons shipped. The total weight of the entire shipment. Respondents reported the weight in pounds. Aggregated pounds were converted to short-tons (2,000 pounds). The tons data are displayed in thousands.

Total modal activity. The overall activity (e.g., ton-miles) of a specific mode of transportation, whether used in a single-mode shipment, or as part of a multiple-mode shipment. For example, the total modal activity for private truck is the total ton-miles carried by private truck in single-mode shipments, combined with the total ton-miles carried by private truck in all multiple-mode shipments that include private truck (private truck and for-hire truck, private truck and rail, private truck and air, etc.)

Value of shipments. The dollar value of the entire shipment. This was defined as the net selling value, f.o.b. plant, exclusive of freight charges and excise taxes. The value data are displayed in millions of dollars.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in the tables for this publication:

- D Denotes figures withheld to avoid disclosing data for individual companies.
- Represents zero or less than 1 unit of measure.
- S Data do not meet publication standards due to high sampling variability or other reasons.
- CFS Commodity Flow Survey.

lb Pounds.

Not elsewhere classified. n.e.c.

Not applicable. NA

Not otherwise specified. n.o.s.

OTHER TRANSPORTATION DATA

Users of transportation data may be especially interested in the following reports:

Economic Census: Transportation Sector covers establishments that provide passenger and freight transportation to the general public, government, or other busi-

Published data include kind of business, geographic location, total operating revenue, annual and first quarter payroll, and number of employees for pay period including March 12.

Vehicle Inventory and Use Survey covers state and U.S. level statistics on the physical and operational characteristics of the Nation's truck, van, minivan, and sport utility vehicle population. Some of the types of data collected

include number of vehicles, major use, body type, annual miles, model year, vehicle size, fuel type, operator classification, engine size, range of operation, weeks operated, products carried, and hazardous materials carried. This survey shows comparative statistics reflecting percent changes in number of vehicles between 1997 and 1992 for most characteristics.

Transportation Annual Survey covers firms with paid employees that provide commercial motor freight transportation and public warehousing services. Data collected include operating revenue and operating revenue by

source, total expenses and expenses percentage of motor carrier freight revenue by commodity type, size of shipments handled, length of haul, and vehicle fleet inventory.

All results of the 1997 Economic Census are available on the Census Bureau Internet site http://www.census.gov and on compact discs (CD-ROM).

For more information on any Census Bureau product, including a description of electronic and printed reports being issued, see the web site or call Customer Services at 301-457-4100.

Shipment Characteristics by Mode of Transportation for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

	Val	Value		ons	Ton-		
Mode of transportation	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment
All modes	6 653	100.0	19 673	100.0	7 047	100.0	218
Single modes	5 617	84.4	16 068	81.7	6 556	93.0	106
Truck ¹ For-hire truck Private truck	3 469 1 109 2 339	52.1 16.7 35.2	9 509 2 829 6 677	48.3 14.4 33.9	414 216 197	5.9 3.1 2.8	53 140 35
Rail	354	5.3	2 065	10.5	880	12.5	426
Water Shallow draft Great Lakes Deep draft	1 194 S - 1 058	18.0 S - 15.9	3 707 137 - 3 570	18.8 .7 – 18.1	S 30 - S	S .4 - S	808 170 - 1 203
Air (includes truck and air)	450 149	6.8	43 745	.2	34 S	.5 S	832 S
Multiple modes	452	6.8	170	.9	82	1.2	815
Parcel, U.S. Postal Service or courier Truck and rail. Truck and water Rail and water Other multiple modes.	237 S 196 —	3.6 S 2.9 - -	11 S 63 - -	- S .3 - -	9 S 65 -	.1 S .9 -	829 83 545 – –
Other and unknown modes	584	8.8	3 435	17.5	409	5.8	99

Shipment Characteristics by Mode of Transportation for State of Origin: 1997 and Table 1b.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

	Value			Tons			Ton-miles			Average miles per shipment		
Mode of transportation	1997 (million dollars)	1993 (million dollars)	Percent change	1997 (thousands)	1993 (thousands)	Percent change	1997 (millions)	1993 (millions)	Percent change	1997	1993	Percent change
All modes	6 653	8 118	-18.0	19 673	23 478	-16.2	7 047	10 903	-35.4	218	217	.4
Single modes	5 617	6 036	-6.9	16 068	19 674	-18.3	6 556	8 415	-22.1	106	108	-2.1
Truck ¹ For-hire truck Private truck	3 469 1 109 2 339	3 632 1 408 2 220	-4.5 -21.3 5.3	9 509 2 829 6 677	10 015 S 6 025	-5.1 S 10.8	414 216 197	409 132 276	1.2 63.3 –28.4	53 140 35	55 123 43	-2.9 13.5 -19.3
Rail	354	390	-9.3	2 065	2 010	2.7	880	833	5.7	426	416	2.4
Water Shallow draft Great Lakes	1 194 S	1 458 S	-18.1 S -	3 707 137	6 663 3 242	-44.4 -95.8 -	S 30	6 972 757	S -96.1	808 170 –	1 012 363	-20.2 -53.1 -
Deep draft	1 058	1 075	-1.6	3 570	3 421	4.4	S	6 215	S	1 203	1 567	-23.2
Air (includes truck and air)	450 149	131 424	243.0 -64.9	43 745	18 S	137.1 S	34 S	19 S	80.9 S	832 S	1 052 S	–20.9 S
Multiple modes	452	339	33.4	170	106	59.7	82	139	-40.9	815	522	56.3
Parcel, U.S. Postal Service or courier . Truck and rail	237 S 196	181 S 141	31.2 S 38.8	11 S 63	21 S 79	-48.1 S -20.7	9 S 65	9 S 126	1.7 S –48.1	829 83 545	505 416 1 483	64.4 -80.1 -63.2
Other multiple modes	_	S	S	_	S	S		S	s	_	10 894	-100.0
Other and unknown modes	584	1 743	-66.5	3 435	3 697	-7.1	409	2 349	-82.6	99	730	-86.4

Represents data cell equal to zero or less than 1 unit of measure.
 D Denotes figures withheld to avoid disclosing data for individual companies.
 S Data do not meet publication standards because of high sampling variability or other reasons. Some unpublished estimates can be derived from other data published in this table. However, figures obtained in this manner are subject to these same limitations.

^{1&}quot;Truck" as a single mode includes shipments which went by private truck only, for-hire truck only, or a combination of private truck and for-hire truck. 2CFS data for pipeline exclude most shipments of crude oil. See "Mileage Calculations" section for details of CFS coverage.

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2CFS data for pipeline exclude most shipments of crude oil. See "Mileage Calculations" section for details of CFS coverage.

Table 1c. Shipment Characteristics by Mode of Transportation for State of Origin: Percent of **Total for 1997 and 1993**

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

Mode of transportation	Value (p	percent)	Tons (p	percent)	Ton-miles (percent)		
widde of transportation	1997	1993	1997	1993	1997	1993	
All modes	100.0	100.0	100.0	100.0	100.0	100.0	
Single modes	84.4	74.4	81.7	83.8	93.0	77.2	
Truck ¹ For-hire truck Private truck	52.1 16.7 35.2	44.7 17.3 27.4	48.3 14.4 33.9	42.7 S 25.7	5.9 3.1 2.8	3.8 1.2 2.5	
Rail	5.3	4.8	10.5	8.6	12.5	7.6	
Water Shallow draft Great Lakes Deep draft	18.0 S - 15.9	18.0 S - 13.2	18.8 .7 — 18.1	28.4 13.8 – 14.6	S .4 - S	63.9 6.9 – 57.0	
Air (includes truck and air)	6.8 2.2	1.6 5.2	.2 3.8	- S	.5 S	.2 S	
Multiple modes	6.8	4.2	.9	.5	1.2	1.3	
Parcel, U.S. Postal Service or courier Truck and rail Truck and water Rail and water Other multiple modes	3.6 S 2.9 -	2.2 S 1.7 - S	- S .3 -	- S .3 - S	.1 S .9 -	- S 1.2 - S	
Other and unknown modes	8.8	21.5	17.5	15.7	5.8	21.5	

Table 2. Shipment Characteristics by Total Modal Activity for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

	Ton-i		
Mode of transportation ¹	Number (millions)	Percent	Average miles per shipment
Total	7 047	100.0	207
Truck Rail Shallow draft Great Lakes Deep draft	430 885 39 - S	6.1 12.6 .5 - S	58 397 171 – 777
Air Parcel, U.S. Postal Service or courier Pipeline Other and unknown modes	25 9 S 409	.4 .1 S 5.8	703 829 S 100

¹Data represent activity for a given mode across single and multiple mode shipments. For example, "Truck" ton-miles includes total ton-miles for shipments moving by truck only plus ton-miles for truck segments only of multiple mode shipments.

Represents data cell equal to zero or less than 1 unit of measure.
 D Denotes figures withheld to avoid disclosing data for individual companies.
 S Data do not meet publication standards because of high sampling variability or other reasons. Some unpublished estimates can be derived from other data published in this table. However, figures obtained in this manner are subject to these same limitations.

^{1&}quot;Truck" as a single mode includes shipments which went by private truck only, for-hire truck only, or a combination of private truck and for-hire truck. 2CFS data for pipeline exclude most shipments of crude oil. See "Mileage Calculations" section for details of CFS coverage.

Represents data cell equal to zero or less than 1 unit of measure.

D Denotes figures withheld to avoid disclosing data for individual companies.

S Data do not meet publication standards because of high sampling variability or other reasons. Some unpublished estimates can be derived from other data published in this table. However, figures obtained in this manner are subject to these same limitations.

Table 3. Shipment Characteristics by Mode of Transportation and Distance Shipped for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

Mode of transportation and distance shipped	Value Tons shipped		Ton-miles	Ton-miles		
(based on Great Circle Distance)	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent
All modes	6 653	100.0	19 673	100.0	7 047	100.0
Less than 50 miles	3 714 310	55.8 4.7	12 339 S	62.7 S	322 S	4.6 S S
100 to 249 miles	295	4.4	S	S	S	
250 to 499 miles	530 379	8.0 5.7	2 109 S	10.7 S	908 S	12.9 S
750 to 999 miles	S	S	S	S	S	S
1,000 to 1,499 miles	225 S	3.4 S	60 S	.3 S	80 S	1.1 S
2,000 miles or more	330	5.0	5	_	S	S
Single modes	5 617	100.0	16 068	100.0	6 556	100.0
Less than 50 miles	3 316 278	59.0 5.0	9 538 S	59.4 S	240 S	3.7 S
100 to 249 miles	182 469	3.2 8.4	237 2 098	1.5 13.1	71 899	1.1 13.7
500 to 749 miles	171	3.0	111	.7	33	.5
750 to 999 miles	S 185	S	S 46	S	S 59	S .9
1,500 to 1,999 miles	S	3.3 S	S	.3 S S	S	S
2,000 miles or more	\$	8	S		S	S
Truck ¹	3 469	100.0	9 509	100.0	414	100.0
Less than 50 miles	2 918 255	84.1 7.3	8 180 S	86.0 S	211 S	51.1 S
100 to 249 miles	152 36	4.4 1.0	214 24	2.3	57 S	13.7 S
500 to 749 miles	76	2.2	11	.1	10	2.3
750 to 999 miles	S 24	S .7	S	S	S 7	S 1.6
1,500 to 1,999 miles	S	S	S	S S S S	S	S
2,000 miles or more	S	8	S		S	S
For-hire truck	1 109	100.0	2 829	100.0	216	100.0
Less than 50 miles	S 98	8.9	2 039 S	72.1 S	102 S	47.2 S
100 to 249 miles	84 22	7.6 2.0	S 9	S	S 4	S 2.0
500 to 749 miles	45	4.0	7	.3 .2	6	2.8
750 to 999 miles	S	S	S	S	S	S
1,000 to 1,499 miles	23 S	2.1 S	S	S S S	6 S	3.0 S
2,000 miles or more	S	S	S		S	S
Private truck	2 339	100.0	6 677	100.0	197	100.0
Less than 50 miles	2 081 156	89.0 6.7	6 140 381	92.0 5.7	110 44	55.5 22.1
100 to 249 miles	67 14	2.9	137 S	2.1 S	33 S	16.6 S
500 to 749 miles	S	S	Š	Š	Š	S
750 to 999 miles	S	S S	SS	S S	S S	S S
1,500 to 1,999 miles	- S	- S	- S	- S	- S	- S
2,000 miles or more						
Rail	354	100.0	2 065	100.0	880	100.0
Less than 50 miles	S -	S -	S	S -	S -	S -
100 to 249 miles	_ 351	99.2	2 059	99.7	- 880	100.0
500 to 749 miles	-	-	-	-	-	-
750 to 999 miles	_ _	-	_ _	<u>-</u>	<u>-</u>	_
1,500 to 1,999 miles 2,000 miles or more	-	_	_	_	-	-
	1 194	100.0	3 707	100.0	s	s
Water						
Less than 50 miles	S S	S S	S S	S S	S S	S S
100 to 249 miles	S	S S	S S S	S S S S	S S	S S S
500 to 749 miles	34	2.8	S	S	21	.4
750 to 999 miles	S 149	S 12.5	S 33	S	S 48	S 9
1,500 to 1,999 miles 2,000 miles or more	S	S	S	.9 S S	S	.9 S S
Shallow draft	s	s	137	100.0	30	100.0
Less than 50 miles	S	s	S	s	s	S
50 to 99 miles	S S	S S	S S	S S	S S	S S
250 to 499 miles	S	S	S	\$ \$ \$	s s	S
750 to 999 miles	s	s	s	s	s	s
1,000 to 1,499 miles	- - -	-	- - -	- - -	- - -	-
1,500 to 1,999 miles	_	_	_	_	_	_

Table 3. Shipment Characteristics by Mode of Transportation and Distance Shipped for State of Origin: 1997—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

100 100 miles	For explanation of terms and meaning of appreviations and symbols	•	· · · · · · · · · · · · · · · · · · ·			<u> </u>	
Single modes		Val	ue	To	ons I	Ton-	miles
Great Lakes	(based on Great Circle Distance)		Percent		Percent		Percent
	Single modes—Con.						
100 100 miles	Great Lakes	-	_	_	_	-	-
100 to 3 do miles	Less than 50 miles	-	-	-	-	-	-
200 to 154 miles	100 to 249 miles	_		_			-
Trails to 100 miles	250 to 499 miles	_ _	_ _	_			- 1
1,000 to 1,000 miles		_	_	_	_	_	_
Color miles or more	1,000 to 1,499 miles	_				_	_
Less than for direiles S S S S S S S S S	2,000 miles or more	_	_		_	_	_
100 100	Deep draft	1 058	100.0	3 570	100.0	s	s
Section Sect	Less than 50 miles		S	S	S	S	S
Section Sect	100 to 249 miles	S	S	Š	Š	S	S
1,000 to 1	500 to 749 miles	S S	S	5	.1		5 -
2,000 miles or more S S S S S S S S S	750 to 999 miles			s	s	S	S
Air (includes truck and air)	1,000 to 1,499 miles	S	S	33 S	S	S	S
Less ban 50 miles	2,000 miles or more						
Solid profession		450	100.0	43	100.0	34	100.0
250 to 400 miles	Less than 50 miles			s	s		- S
Solit of 149 miles	100 to 249 miles	29	6.3	S	S	S	
1,000 to 1,495 miles	500 to 749 miles			3			
Pipeline	750 to 999 miles			2			
Pipeline	1,500 to 1,999 miles	6	1.3	Š	S	S	S
Less than 50 miles							
30 to 99 miles							
Table 1999 miles	50 to 99 miles	149	_	-	-	S	8
Table 1999 miles	250 to 499 miles	_ _			_	S	S
1,000 to 1,499 miles	500 to 749 miles	-	_	_	_		
Multiple modes	750 to 999 miles			_		S S	S S
Multiple modes	1,500 to 1,999 miles	_ _	_ _			S	S
Less Han 50 miles 65		452	100.0	170	100.0		
250 to 499 miles 42		65	14.3	s	s		s
250 to 499 miles 42				S 2			
1,000 to 1,495 miles	250 to 499 miles	42	9.3	6	3.4		5.9
1,000 to 1,499 miles 35							
Parcel, U.S. Postal Service or courier 237 100.0 11 100.0 9 100.0	1,000 to 1,499 miles	35	7.8	12	6.9	20	24.9
Less than 50 miles	2,000 miles or more	70					28.5 S
50 to 99 miles	Parcel, U.S. Postal Service or courier	237	100.0	11	100.0	9	100.0
100 to 249 miles 23 9,7 2 14,1 5 5 5 50 to 499 miles 35 14,9 5 5 5 5 5 5 5 5 5	Less than 50 miles	38	16.1	2		S	S
17.6 3 23.7 4 37.4 37.4 37.4 37.4 37.4 37.4 37.4 37.4 37.4 37.4 37.4 37.5	50 to 99 miles	22 23	9.5 9.7	1 2			2.3 S
750 to 999 miles	250 to 499 miles			S 3			
1,000 to 1,499 miles S S S S S S S S S				_		_	
2,000 miles or more 61 25.5 - 3.5 1 8.2	1,000 to 1,499 miles	S	S		.5	S	S
Less than 50 miles	2,000 miles or more				3.5	1	8.2
Solid by 9 miles Solid by 9	Truck and rail	s	s	s	s	s	s
100 to 249 miles	Less than 50 miles			s			
500 to 749 miles	100 to 249 miles	S -			S -	S -	S -
Tool to 999 miles		_ _					
1,000 to 1,499 miles		_	_	_	_	_	_
Z,000 miles or more -	1,000 to 1,499 miles	-				_	_
Less than 50 miles S	2,000 miles or more	=				=	=
50 to 999 miles - <td>Truck and water</td> <td>196</td> <td>100.0</td> <td>63</td> <td>100.0</td> <td>65</td> <td>100.0</td>	Truck and water	196	100.0	63	100.0	65	100.0
100 to 249 miles S <td>Less than 50 miles</td> <td>s</td> <td>S</td> <td>s</td> <td>s</td> <td>s</td> <td>s</td>	Less than 50 miles	s	S	s	s	s	s
750 to 999 miles	100 to 249 miles			s			
750 to 999 miles	250 to 499 miles			2 S			1.5 S
1,000 to 1,499 miles 29 14.5 12 18.7 20 31.1 1,500 to 1,999 miles 46 23.7 11 17.9 23 35.6							s
	1,000 to 1,499 miles	29	14.5	12	18.7	20	31.1 35.6
	2,000 miles or more				l s	l S	

Table 3. Shipment Characteristics by Mode of Transportation and Distance Shipped for State of Origin: 1997-Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

Mode of transportation and distance shipped	Va	lue	To	ons	Ton-miles		
(based on Great Circle Distance)	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
Multiple modes - Con.							
Rail and water	-	-	_	-	-	-	
Less than 50 miles 50 to 99 miles 100 to 249 miles 250 to 499 miles 500 to 749 miles	- - - - -	- - - -	- - - - -	- - - - -	- - - - -		
750 to 999 miles	- - -	- - -	- - - -	- - -	- - -	-	
Other multiple modes	-	-	_	_	-	-	
Less than 50 miles 50 to 99 miles 100 to 249 miles 250 to 499 miles 500 to 749 miles	- - - - -	- - - -	- - - - -	- - - - -	- - - - -		
750 to 999 miles 1,000 to 1,499 miles 1,500 to 1,999 miles 2,000 miles or more	- - - -	- - - -	- - - -	- - - -	- - -	=======================================	
Other and unknown modes	584	100.0	3 435	100.0	409	100.0	
Less than 50 miles 50 to 99 miles 100 to 249 miles 250 to 499 miles 500 to 749 miles	334 4 S S S	57.1 .7 .8 .8 .8	2 724 S S 5 S	79.3 S S .1 S	S S S 4 S	\$ \$ \$ 1.0 \$	
750 to 999 miles	\$ 8 8 8 8 8 8	9999	\$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$	\$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$ \$ \$ \$	

Represents data cell equal to zero or less than 1 unit of measure.
 D Denotes figures withheld to avoid disclosing data for individual companies.
 S Data do not meet publication standards because of high sampling variability or other reasons. Some unpublished estimates can be derived from other data published in this table. However, figures obtained in this manner are subject to these same limitations.

^{1&}quot;Truck" as a single mode includes shipments which went by private truck only, for-hire truck only, or a combination of private truck and for-hire truck. 2CFS data for pipeline exclude most shipments of crude oil. See "Mileage Calculations" section for details of CFS coverage.

Table 4. Shipment Characteristics by Mode of Transportation and Shipment Size for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

For explanation of terms and meaning of abbreviations and symbols, see introduct	Value			ons	Ton-miles			
Mode of transportation and shipment size	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment	
All modes	6 653	100.0	19 673	100.0	7 047	100.0	218	
Less than 50 lb	435 164 511 S 84	6.5 2.5 7.7 S 1.3	16 13 66 35 32	- .3 .2 .2	4 3 13 4 3	- .2 -	263 217 211 122 93	
1,000 to 9,999 lb 10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	762 1 661 575 2 200	11.4 25.0 8.6 33.1	725 5 335 2 643 10 808	3.7 27.1 13.4 54.9	58 347 149 6 466	.8 4.9 2.1 91.8	92 56 57 S	
Single modes	5 617	100.0	16 068	100.0	6 556	100.0	106	
Less than 50 lb 50 to 99 lb 50 to 749 lb 50 to 999 lb	244 118 427 S 82	4.3 2.1 7.6 S 1.5	11 10 55 34 31	- .3 .2 .2	1 1 8 3 2	- .1 - -	112 116 137 83 79	
1,000 to 9,999 lb 10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	716 1 473 563 1 740	12.7 26.2 10.0 31.0	710 5 181 2 487 7 550	4.4 32.2 15.5 47.0	52 284 138 6 067	.8 4.3 2.1 92.5	83 48 57 S	
Truck¹ Less than 50 lb	3 469	100.0 5.7	9 509 10	100.0	414	100.0	53 46	
50 to 99 lb 100 to 499 lb 500 to 499 lb 500 to 749 lb 500 to 749 lb 500 to 750 to 999 lb	97 263 118 76	2.8 7.6 3.4 2.2	9 51 33 29		1 4 2 2	.2 .1 1.1 .5 .4	64 85 58 53	
1,000 to 9,999 lb 10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	669 1 108 545 S	19.3 31.9 15.7 S	694 5 066 2 422 1 195	7.3 53.3 25.5 12.6	39 158 136 72	9.4 38.3 32.8 17.4	63 29 57 82	
For-hire truck	1 109	100.0	2 829	100.0	216	100.0	140	
Less than 50 lb 50 to 99 lb 100 to 499 lb 500 to 749 lb 750 to 999 lb	31 14 60 25 11	2.8 1.3 5.4 2.2 1.0	2 1 6 4 2	- .2 .1	- 2 1 -	.2 - .8 .4 .2	S 216 296 S 216	
1,000 to 9,999 lb 10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	\$ 277 \$ \$	\$ 25.0 \$ \$	S S 961 S	S S 34.0 S	16 S S S	7.3 S S S	148 S S 98	
Private truck	2 339	100.0	6 677	100.0	197	100.0	35	
Less than 50 lb 50 to 99 lb 50 to 749 lb 500 to 999 lb	162 80 196 93 62	6.9 3.4 8.4 4.0 2.6	8 8 44 29 27	.1 .1 .7 .4 .4	- 2 1 1	.1 .2 1.2 .5 .6	29 44 51 34 44	
1,000 to 9,999 lb 10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	406 831 397 S	17.4 35.5 17.0 S	523 3 836 1 461 741	7.8 57.5 21.9 11.1	23 85 54 30	11.5 43.2 27.5 15.1	46 21 36 71	
Rail	354	100.0	2 065	100.0	880	100.0	426	
Less than 50 lb 50 to 99 lb 100 to 499 lb	_ _ _	_ 	-	_ _ _	_ _ _	_ _ _	-	
500 to 749 lb	_ _	_ _	- -	_ _	_ _	_ _	- -	
1,000 to 9,999 lb 10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	- - S 353	- - S 99.6	- S 2 062	- - S 99.9	_ _ S 880	- S 100.0	- 1 426	
Water	1 194	100.0	3 707	100.0	S	s	808	
Less than 50 lb 50 to 99 lb 100 to 499 lb 500 to 749 lb 750 to 999 lb	1 S S S S	.1 S S S S	- s - s s	- S - S S	88888	<i>აააააა</i>	210 1 198 501 S 2 065	
1,000 to 9,999 lb 10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	3 324 S S	.3 27.2 S S	S S 4 S	S S .1 S	S S S S	8888	318 1 417 434 772	
Shallow draft	s	s	137	100.0	30	100.0	170	
Less than 50 lb 50 to 99 lb 100 to 499 lb 50 to 999 lb 750 to 999 lb	\$ - \$ \$	S - S S -	S - S S -	8 88	S - S S -	S - S S -	93 - 87 146 -	
1,000 to 9,999 lb 10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	\$ \$ \$ \$	\$ \$ \$ \$	\$ \$ \$ \$ \$ \$	\$ \$ \$	S S S 24	S S S 82.4	292 422 189 203	

Table 4. Shipment Characteristics by Mode of Transportation and Shipment Size for State of Origin: 1997—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

For explanation of terms and meaning of appreviations and symbols, see introduct	Vali			ons	Ton-	miles	
Mode of transportation and shipment size	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment
Single modes — Con.							
Great Lakes	_	-	-	-	-	-	-
Less than 50 lb	_	_ _		_	-	-	_
100 to 499 lb	_		_	_	_	_	_
500 to 749 lb			-		-		_
1,000 to 9,999 lb	_	_	-	_	_	-	_
10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	_ _ _	_ _ _	_ _ _		-	_ _ _	_ _ _
Deep draft	1 058	100.0	3 570	100.0	s	s	1 203
Less than 50 lb	S	S S	S S	S S	S	S S	591 1 198
100 to 499 lb 500 to 749 lb 750 to 999 lb	1 S S	.1 S S	S	S S	99999	SSS	673 2 080 2 065
1,000 to 9,999 lb 10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	S 263 S S	\$ 24.9 \$ \$	8888	\$ \$ \$ \$	8888	\$ \$ \$ \$ \$	332 1 583 839 1 432
Air (includes truck and air)	450	100.0	43	100.0	34	100.0	832
Less than 50 lb	46	10.2	1	2.3	1	2.3	866
50 to 99 lb	20 S	4.5 S	1 4	1.5 9.7	1 3	1.5 9.1	772 720
500 to 749 lb	S 6	S 1.3	1 2	2.3 4.2	1	2.5 2.6	859 496
1,000 to 9,999 lb	43	9.4	14	33.4	13	37.6	955
10,000 to 49,999 lb	S -	S -	S -	S -	S -	S -	744
100,000 lb or more	S 149	100.0	S 745	S 100.0	s s	s s	1 850 S
Less than 50 lb	149	100.0	745	100.0	s S	S	
50 to 99 lb 100 to 499 lb	_	=	_	=	88	S	S
500 to 749 lb	_	_ _ _			988	S	S S S S S S
750 to 999 lb	s	S		s		S	
10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	S S S 131	S S S 87.8	S S S 669	S S 89.8	<i>\$</i> \$ \$ \$ \$	3 5 5 5	S S S S
Multiple modes	452	100.0	170	100.0	82	100.0	815
Less than 50 lb	147	32.6	3	1.9	2	2.6	819
50 to 99 lb	34 60	7.6 13.2	2 7	1.1 3.9	2 5	1.9 6.2	783 808
500 to 749 lb	S S	S S	SS	S S	S S	S S	1 281 1 464
1,000 to 9,999 lb 10,000 to 49,999 lb 50,000 to 99,999 lb	S 143 S	S 31.7 S	3000	1.6 S S S	2 55 S	1.9 66.8 S	352 1 063 S
100,000 lb or more	S	S			10	12.1	S
Parcel, U.S. Postal Service or courier	237	100.0	11	100.0	9	100.0	829
Less than 50 lb	145 34	61.3 14.3	3 2	26.8 16.6	2	21.0 15.8	826 792
100 to 499 lb 500 to 749 lb 750 to 999 lb	S S S	S S S	5 S S	43.9 S S	S S S	SSS	877 1 281 1 464
1,000 to 9,999 lb	S	S -	S	S	S	S	138
50,000 to 99,999 lb 100,000 lb or more	_		_	=	_	_	=
Truck and rail	s	s	s	s	s	s	83
Less than 50 lb	_	_	-	_	-	_	_
50 to 99 lb	_	_ _	-	_	-	_	_
500 to 749 lb	_	_ _	-	_ _	-	_ _	-
1,000 to 9,999 lb	_	_	-	_	_	_	_
10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	S S	S S	S S	S S	S	S S	98 53
Truck and water	196	100.0	63	100.0	65	100.0	545
Less than 50 lb	S S	S S	SS	S S	SS	S S	529 383
100 to 499 lb	7 -	3.6	S S	S -	S -	S -	500
750 to 999 lb	-	_	-	-	-	=	=
1,000 to 9,999 lb	S 143	S 73.1	3 S	4.3 S	2 55	2.3 83.7	361 1 063
50,000 to 99,999 lb 100,000 lb or more	S S	S S	SSS	S S S	S	\$ \$ \$	602 1 319

Table 4. Shipment Characteristics by Mode of Transportation and Shipment Size for State of Origin: 1997-Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

	Value		Tons		Ton-miles		
Mode of transportation and shipment size	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment
Multiple modes—Con.							
Rail and water	_	-	-	_	-	-	-
Less than 50 lb	_	_	-	_	-	_	-
100 to 499 lb	_	_	_	_	_	_	_
500 to 749 lb	_	_	_	_	_	_	_
750 to 999 lb	_	_	_	_	_	_	_
1,000 to 9,999 lb	-	_	_	_	_	_	_
10,000 to 49,999 lb	-	_	_	_	_	_	-
50,000 to 99,999 lb	-	_	_	_	_	_	_
100,000 lb or more	_	_	_	_	_	_	_
Other multiple modes	_	-	-	-	-	-	-
Less than 50 lb	_	_	_	_	_	_	-
50 to 99 lb	_	_	_	_	_	_	_
100 to 499 lb	_	_	_	_	_	_	_
500 to 749 lb	-	_	_	_	_	_	_
750 to 999 lb	-	_	-	-	_	-	=
1,000 to 9,999 lb	_	_	_	_	_	_	_
10,000 to 49,999 lb	_	_	_	_	_	_	_
50,000 to 99,999 lb	-	_	_	_	_	_	_
100,000 lb or more	_	_	_	_	_	_	_
Other and unknown modes	584	100.0	3 435	100.0	409	100.0	99
Less than 50 lb	44	7.5	2	_	_	_	89
50 to 99 lb	12	2.1	1	_	_	_	Š
100 to 499 lb	24	4.2	4	.1	1	2	158
500 to 749 lb	l -i	.2			Ś	Š	S
750 to 999 lb	l s	S	S	S	Š	Š	Š
		_					_
1,000 to 9,999 lb	27	4.6	12	1	1	1.0	411
10,000 to 49,999 lb.	45	7.6	12 S	.4 S	4 0	2.1	411 S
50.000 to 99.999 lb	Š	7.0 S	S	Š	š	S	54
100,000 lb or more	429	73.4	3 211	93.5	Š	Š	S S
	1	7 0	0 2	00.0			

Represents data cell equal to zero or less than 1 unit of measure.
 D Denotes figures withheld to avoid disclosing data for individual companies.
 S Data do not meet publication standards because of high sampling variability or other reasons. Some unpublished estimates can be derived from other data published in this table. However, figures obtained in this manner are subject to these same limitations.

^{1&}quot;Truck" as a single mode includes shipments which went by private truck only, for-hire truck only, or a combination of private truck and for-hire truck. 2CFS data for pipeline exclude most shipments of crude oil. See "Mileage Calculations" section for details of CFS coverage.

Table 5. Shipment Characteristics by Two-Digit Commodity for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

0070		Val	ue	То	ns	Ton-	miles	
SCTG code	Commodity description	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment
	All commodities	6 653	100.0	19 673	100.0	7 047	100.0	218
01 02 03 04 05	Live animals and live fish Cereal grains Other agricultural products Animal feed and products of animal origin, n.e.c. Meat, fish, seafood, and their preparations	- 43 S 1 174	- - .6 S 17.6	- 25 S 386	- - .1 S 2.0	- 3 S 254	- - - S 3.6	- 151 S 530
06 07 08 09 10	Milled grain products and preparations, and bakery products Other prepared foodstuffs and fats and oils Alcoholic beverages Tobacco products Monumental or building stone	S 78 137 7 8	\$ 1.2 2.1 .1 \$	S 81 68 S S	\$.4 .3 \$ \$	S 2 6 S S	\$ - - \$ \$	85 143 134 S 3
11 12 13 14 15	Natural sands Gravel and crushed stone Nonmetallic minerals n.e.c. Metallic ores and concentrates Coal	\$ \$ \$ \$ -	\$ \$ \$ \$ -	\$ \$ \$ \$ -	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$	60 60 173 424 —
17 18 19 20 21	Gasoline and aviation turbine fuel. Fuel oils Coal and petroleum products, n.e.c. Basic chemicals Pharmaceutical products	1 741 849 82 S	26.2 12.8 1.2 S	6 680 3 730 S S	34.0 19.0 S S S	S S S 2 S	\$ \$ \$ \$	65 42 S 56 234
22 23 24 25 26	Fertilizers Chemical products and preparations, n.e.c. Plastics and rubber Logs and other wood in the rough Wood products	S 31 79 S 60	\$.5 1.2 \$.9	\$ 19 22 \$ 273	S .1 .1 S 1.4	S 6 S S 23	S - S S S 3	274 354 229 S 67
27 28 29 30 31	Pulp, newsprint, paper, and paperboard Paper or paperboard articles Printed products Textiles, leather, and articles of textiles or leather Nonmetallic mineral products	S 29 176 21 60	S .4 2.6 .3 .9	S 9 106 1 S	S - .5 - S	S - 10 - 12	S - .1 - .2	664 S 397 579 40
32 33 34 35	Base metal in primary or semifinished forms and in finished basic shapes. Articles of base metal Machinery Electronic and other electrical equipment and components and office	55 147 227	.8 2.2 3.4	44 44 14	.2 .2 -	3 10 6	_ .1 _	76 158 283
36	equipment	224 159	3.4 2.4	15 20	.1	3 3		218 S
37 38 39	Transportation equipment, n.e.c. Precision instruments and apparatus Furniture, mattresses and mattress supports, lamps, lighting fittings, and	S S	S S	S S	S S	S S	S S	330 S
40 41 43	illuminated signs Miscellaneous manufactured products Waste and scrap Mixed freight Commodity unknown	5 379 S - 4	5.7 S - -	1 10 S - 1	- S -	S 3 5 -	S - S -	188 596 1 051 - S

Note: Data exclude shipments of SCTG 16, Crude Petroleum. See the section "Industry Coverage" for additional information.

Represents data cell equal to zero or less than 1 unit of measure.
 D Denotes figures withheld to avoid disclosing data for individual companies.
 S Data do not meet publication standards because of high sampling variability or other reasons. Some unpublished estimates can be derived from other data published in this table. However, figures obtained in this manner are subject to these same limitations.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

SCTC and deposition and made of transmittation	Value		Tons	S	Ton-m	illes	
SCTG code, description, and mode of transportation	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment
ALL COMMODITIES							
Total	6 653	100.0	19 673	100.0	7 047	100.0	218
Single modes	5 617	84.4	16 068	81.7	6 556	93.0	106
Truck¹ For-hire truck Private truck	3 469 1 109 2 339	52.1 16.7 35.2	9 509 2 829 6 677	48.3 14.4 33.9	414 216 197	5.9 3.1 2.8	53 140 35
Rail	354	5.3	2 065	10.5	880	12.5	426
Vater Shallow draft Great Lakes Deep draft	1 194 S - 1 058	18.0 S - 15.9	3 707 137 - 3 570	18.8 .7 _ 18.1	S 30 - S	S .4 - S	808 170 _ 1 203
Air (includes truck and air)Pipeline ²	450 149	6.8 2.2	43 745	.2 3.8	34 S	.5 S	832 S
Multiple modes	452	6.8	170	.9	82	1.2	815
Parcel, U.S. Postal Service or courier Truck and rail Truck and water Rail and water Other multiple modes	237 S 196 -	3.6 S 2.9 -	11 S 63 - -	- S .3 - -	9 S 65 - -	.1 S .9 -	829 83 545 –
Other and unknown modes	584	8.8	3 435	17.5	409	5.8	99
SCTG 01, LIVE ANIMALS AND LIVE FISH							
Total	_	-	-	_	-	-	-
Single modes	_	-	-	-	-	-	-
Truck ¹ For-hire truck Private truck	_ _ _	_ _ _	- - -	- - -	- - -	- - -	- - -
Rail	-	-	-	-	-	-	-
Water Shallow draft Great Lakes Deep draft	- - - -	- - -	- - - -	- - -	- - -	- - -	- - - -
Air (includes truck and air)	_	_	_	_	_ S	_ S	_ S
Multiple modes	_	_	_	_	-	-	-
Parcel, U.S. Postal Service or courier Truck and rail Truck and water	_ _ _	- - -	- - -	- - -	- - -	_ _ _	- -
Rail and water Other multiple modes		_	-	_	-	-	=
Other and unknown modes	-	-	-	-	-	-	-
SCTG 02, CEREAL GRAINS							
Total	-	-	-	-	-	-	-
Single modes	-	-	-	-	-	-	-
Truck¹ For-hire truck Private truck	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Rail	-	-	-	-	-	-	-
Water Shallow draft Great Lakes Deep draft	- - -	- - -	- - -	- - -	- - -	- - - -	- - - -
Air (includes truck and air)		_	_	_	_ S	_ S	_ S
Multiple modes	_	_	_	_	-	-	-
Parcel, U.S. Postal Service or courier Truck and rail Truck and water Rail and water	- - -	- - -	- - -	- - -	- - -	- - -	_ _ _ _
Other multiple modes	-	-	-	-	-	-	-
Other and unknown modes	-	-1	-1	-1	-1	-1	-

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

	Val	ue	То	ns	Ton-	miles	
SCTG code, description, and mode of transportation	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment
SCTG 03, OTHER AGRICULTURAL PRODUCTS							
Total	43	100.0	25	100.0	3	100.0	151
Single modes	41	95.5	23	94.9	2	61.5	113
Truck ¹	39	90.3	23	91.8	1	46.1	75
For-hire truck	S 36	S 84.9	S S	S S	S S	S S	321 64
Rail	_	-	_	_	_	_	_
Water	s	s	S	s	S	s	916
Shallow draft Great Lakes		- -	-	_ _ S	-	-	-
Deep draft	S	S	S		S	S	916
Air (includes truck and air)	S -	S -	S -	S -	S S	S S	582 S
Multiple modes	s	s	s	s	s	s	852
Parcel, U.S. Postal Service or courier	s	s	S	s	S	s	1 493
Truck and water Rail and water	S	S	S	S	S	S	357
Other multiple modes	-	-	-	_	-	-	-
Other and unknown modes	s	s	s	s	S	s	927
SCTG 04, ANIMAL FEED AND PRODUCTS OF ANIMAL ORIGIN, N.E.C.							
Total	s	s	s	s	s	s	s
Single modes	s	s	s	s	s	s	51
Truck ¹	S	s	S	S	S	S	51
For-hire truck Private truck	S S	S S	S S	S S	S S	S S	88 9
Rail	-	-	-	=	-	-	-
Water	_	-	-	-	-	-	-
Great Lakes Deep draft	_	=	=	=	=		=
Air (includes truck and air)	_	_	_	_	_	_	_
Pipeline ²	-	-	-	_	S	S	S
Multiple modes	-	-	-	-	-	-	_
Parcel, U.S. Postal Service or courier	_	- -		_ _		_ _	- -
Truck and water Rail and water Other multiple modes		-	-		_	-	_
Other multiple modes	- e	-	- e	-	- 9	_ _	974
SCTG 05, MEAT, FISH, SEAFOOD, AND THEIR			Ü		J		3.4
PREPARATIONS							
Total	1 174	100.0	386	100.0	254	100.0	530
Single modes	938	79.9	328	85.1	199	78.6	507
Truck ¹ For-hire truck	S S	S S	S S	S	25 S	9.7 S	214 326
Private truck	45	3.8	16	4.1	S	S	153
Rail	-	-	_	_	_	_	_
Water Shallow draft	443 S	37.7 S	141 S	36.6 S	S S	S S	1 354 360
Great Lakes Deep draft	332	28.3	98	25.4	S	s	1 571
Air (includes truck and air)	30	2.6	5 -	1.2	9 S	3.7 S	1 876 S
Multiple modes	165	14.0	s	s	49	19.4	982
Parcel, U.S. Postal Service or courier	s	s	s	s	s	s	1 235
Truck and rail Truck and water	164	14.0	S	S	49	19.3	855
Rail and water Other multiple modes	-	-	_		Ξ		_ _
Other and unknown modes	71	6.0	11	2.9	5	2.1	s

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

0070	Value		Ton	s	Ton-r	niles	
SCTG code, description, and mode of transportation	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment
SCTG 06, MILLED GRAIN PRODUCTS AND PREPARATIONS, AND BAKERY PRODUCTS							
Total	s	s	s	s	s	s	85
Single modes	s	s	s	s	s	s	85
Truck ¹	s	s	s	S	s	s	85
For-hire truck Private truck	- S	S	- S	S	S	S	85
Rail	-	-	-	-	-	-	-
Water	_	_	-	_	_	_	-
Shallow draft	_	_	_	_	_	_	-
Deep draft	_	-	-	-	-	-	=
Air (includes truck and air)	_	-	-	_	_ S	_ S	-
Pipeline ²	_	-	-	-	5	5	3
Multiple modes	-	-	-	-	-	-	-
Parcel, U.S. Postal Service or courier	-	-	-	_	-	-	-
Truck and railTruck and water	_ [_	_	_	_	_	-
Rail and water Other multiple modes	-	-	-	_	-	-	=
Other multiple modes	_	-	_		-	_	
Other and unknown modes	-	-	-	-	-	-	-
SCTG 07, OTHER PREPARED FOODSTUFFS AND FATS AND OILS							
Total	78	100.0	81	100.0	2	100.0	143
Single modes	75	96.3	80	98.9	2	90.3	69
Truck ¹	75	95.6	80	98.8	2	87.8	61
For-hire truck	S 75	95.2	S 80	98.7	S 2	87.5	153 60
Rail	_	-	-	-	-	-	-
Water	_	_	_	_	_	_	=
Shallow draft Great Lakes	_	_	_	_	_	_	_
Deep draft	-	-	-	-	-	-	_
Air (includes truck and air)Pipeline ²	S -	S -	S -	S -	S S	S	659 S
Multiple modes	s	s	s	s	-	5.5	871
Parcel, U.S. Postal Service or courier	s	s	s	s	s	s	988
Truck and rail	_ S	- S	- S	_ S	- S	_ S	_ 358
Rail and water	-	-	-	-	-	-	-
Other multiple modes	_	-	-	-	-	-	-
Other and unknown modes	S	s	S	S	S	S	137
SCTG 08, ALCOHOLIC BEVERAGES							
Total	137	100.0	68	100.0	6	100.0	134
Single modes	124	91.0	64	93.9	5	83.2	86
Truck ¹ For-hire truck Private truck	124 S 121	90.6 S 88.8	63 S 62	93.6 S 92.1	5 S 4	82.0 S 75.0	85 406 45
Rail	_	-	-	-	-	-	-
Water	_	_	_	_	_	_	-
Shallow draft Great Lakes	_	_	=	_	_	_	_
Deep draft	_	-	-	_	-	=	_
Air (includes truck and air)Pipeline ²	S -	S	S -	S -	S S	S	349 S
Multiple modes	s	s	s	s	s	s	725
Parcel, U.S. Postal Service or courier	_	_	_	_	_	_	_
Truck and rail	_	-	=	-	_	_	70-
Truck and water	S -	S -	S -	S -	S -	S -	725 -
Other multiple modes	-	-	-	-	-	-	_
Other and unknown modes	s	s	s	s	s	s	s

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

CCTC and a decorption and made of transmistation	Valu	e	Toi	ns	Ton-r	niles	
SCTG code, description, and mode of transportation	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment
SCTG 09, TOBACCO PRODUCTS							
Total	7	100.0	s	s	s	s	s
Single modes	s	s	s	s	-	11.5	30
Truck ¹	s	s	s	s	_	11.5	30
For-hire truck	s	s	- S	- S	-	11.5	30
Rail	-	-	-	-	-	-	-
Water	_	-	_	_	-	_	-
Shallow draft Great Lakes Deep draft	- - -	- - -	- - -	_ _ _	- - -	- - -	- - -
Air (includes truck and air)	_	_	_ _		- S	- S	_ S
Multiple modes	s	s	s	s	s	s	579
Parcel, U.S. Postal Service or courier	s	s	s	s	s	s	579
Truck and railTruck and water		_ _	-	_	_	_	
Rail and water	_	_	_	_	_	_	_ _
Other and unknown modes	s	s	s	s	s	s	68
SCTG 10, MONUMENTAL OR BUILDING STONE							
Total	s	s	s	s	s	s	3
Single modes	s	s	s	s	s	s	3
Truck ¹	s	s	S	s	S	s	3
For-hire truck	S	s	s	S	S	s	3
Rail	_	-	-	-	-	-	_
Water	_	-	_	_	-	_	_
Shallow draft Great Lakes Deep draft	- - -	- - -	- - -	_ _ _	- - -	_ _ _ _	- - -
Air (includes truck and air)Pipeline ²	_	_	_	_	_ S	_ S	- S
Multiple modes	_	_	_	_	-	-	-
Parcel, U.S. Postal Service or courier	_	_	_	_	-	_	-
Truck and railTruck and water	_	_	_	_	_	_	_
Rail and waterOther multiple modes	_ _	-	-	_ _	_ _	_ _	_
Other and unknown modes	-	-	-	-	-	-	-
SCTG 11, NATURAL SANDS							
Total	s	s	s	s	s	s	60
Single modes	s	s	s	s	s	s	60
Truck ¹ For-hire truck Private truck	\$ \$ -	S S -	\$ \$ -	S S -	\$ \$ -	\$ \$ -	60 60 —
Rail	_	-	-	-	-	-	-
Water	_	-	-	-	-	-	-
Shallow draft Great Lakes Deep draft	- - -	- - -	- - -	_ _ _	- - -	- - -	- -
Air (includes truck and air)Pipeline ²	_	_	_ _	_ _	- S	- S	_ S
Multiple modes	_	-	-	_	-	-	-
Parcel, U.S. Postal Service or courier	_	-	-	-	-	-	=
Truck and rail	_ _ _	- - -	- - -	_ _ _	- - -	_ _ _	_ _ _
Other multiple modes	-	-	-	-	-	-	_
Other and unknown modes	_	_	_	_	_	_	-

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

	Value	,	Toi	ns	Ton-	miles	
SCTG code, description, and mode of transportation	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment
SCTG 12, GRAVEL AND CRUSHED STONE							
Total	s	s	s	s	s	s	60
Single modes	s	s	s	s	s	s	61
Truck ¹	S	s	s	s	S	s	61
For-hire truck Private truck	S S	S S	S S	S S S	S S	S S	64 29
Rail	-	-	-	-	-	-	=
Water		-	-	_	_ _	_	=
Great Lakes Deep draft		-	-		_ _	_ _	_ _
Air (includes truck and air)Pipeline ²		-	_ _	_ _	- S	- S	_ S
Multiple modes	_	-	-	-	-	_	-
Parcel, U.S. Postal Service or courier	_	-	_	_	_	-	-
Truck and rail		-	_	-	_		=
Rail and water	_	-	-	_ _	_	-	_
Other and unknown modes	s	s	s	s	s	s	51
SCTG 13, NONMETALLIC MINERALS N.E.C.							
Total	s	s	s	s	s	s	173
Single modes	s	s	s	s	s	s	173
Truck ¹	s	s	s	S	S	s	173
For-hire truck	S	S	S	S	S	S	173
Rail	_	-	-	-	-	-	-
Water	_	-	-	_	=	_	_
Shallow draft Great Lakes Deep draft	- - -	- - -	- - -	_ _ _	=	- - -	_ _ _
Air (includes truck and air)	_	-	-	_	_ S	_ _ S	_ S
Multiple modes	_	_	_	_	-	_	-
Parcel, U.S. Postal Service or courier	_	_	_	_	_	_	_
Truck and rail	_	-	_	_	_		- -
Rail and water	_ _	-	- -	_ _	-	_ _	_ _
Other and unknown modes	_	-	-	-	-	-	-
SCTG 14, METALLIC ORES AND CONCENTRATES							
Total	s	s	s	s	s	s	424
Single modes	s	s	s	s	s	s	399
Truck¹ For-hire truck Private truck	S S	S S	S S	S S	S S	s s	98 98
Rail	_	_	_	_	_	_	_
Water	S	s	s	s	S	s	37
Shallow draft Great Lakes	- - S	- - S	- - S	- - S	- - S	- - S	- - 37
Deep draft Air (includes truck and air)	S	s s	S	S	s	s s	555
Pipeline ²	_	-	-	-	Š	S	S
Multiple modes	-	-	-	-	-	-	_
Parcel, U.S. Postal Service or courier	_	-	-	_ _	- -	_ _	- -
Truck and water Rail and water Other multiple modes		- - -	- - -	- - -	- - -	- - -	_ _ _
	s	s	s	s	s	s	664

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

	Value		Tons	S	Ton-r	niles	
SCTG code, description, and mode of transportation	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment
SCTG 15, COAL							
Total	_	_	_	_	_	_	_
Single modes	_	_	-	-	-	-	_
Truck ¹	_	_	_	_	_	-	_
For-hire truck	_	-	- -	_	- -	-	_ _
Rail	-	-	-	-	-	-	-
Water Shallow draft	_	_	_	_	_	-	_
Great Lakes Deep draft	_	-	-	_	_ _	_	_ _ _
Air (includes truck and air)	_	_	_	_	_ S	_ S	- S
Multiple modes	_	_	_	_	_	_	-
Parcel, U.S. Postal Service or courier	_	_	_	_	_	_	_
Truck and rail Truck and water	_	_	- -	_	- -	- -	_ _
Rail and water	_	-	-	_	-	-	_ _
Other and unknown modes	-	-	-	-	-	-	-
SCTG 17, GASOLINE AND AVIATION TURBINE FUEL							
Total	1 741	100.0	6 680	100.0	s	s	65
Single modes	1 727	99.2	6 606	98.9	s	s	66
Truck ¹ For-hire truck	1 136 S	65.3 S	3 488 S	52.2 S	S	S	35 44
Private truck	847	48.7	2 871	43.0	80	2.5	33
Rail	222	12.7	1 264	18.9	538	16.8	426
Water Shallow draft	S	S	s	S	S	S	1 977
Great Lakes Deep draft	- S	s	S	s	- S	- S	1 977
Air (includes truck and air)Pipeline ²	S 104	S 6.0	S 558	S 8.4	S	S S	828 S
Multiple modes	s	s	s	s	s	s	49
Parcel, U.S. Postal Service or courier	_ S	_ S	_ S	_ S	_ S	_ S	_ 49
Truck and water Rail and water		-	-	-	- -	- -	_ _ _
Other multiple modes	-	-	-	-	-	-	=
Other and unknown modes	s	s	s	s	s	s	31
SCTG 18, FUEL OILS							
Total	849	100.0	3 730	100.0	s	s	42
Single modes	843	99.4	3 708	99.4	s	s	42
Truck¹ For-hire truck Private truck	475 S 412	56.0 S 48.5	1 784 S 1 623	47.8 S 43.5	S S 67	S S 5.2	31 28 31
Rail	130	15.3	795	21.3	343	26.9	430
Water	s	s	s	S	s	s	908
Shallow draft Great Lakes Deep draft	- - S	- - S	- - S	- - S	- - S	- - S	- 908
Air (includes truck and air)	_	_	_	_	-	_	=
Pipeline ²	s s	s s	s s	s s	s s	s s	S 151
Parcel, U.S. Postal Service or courier	_	_	_	_	-	_	-
Truck and rail	S _	S -	S -	S -	S -	S _	151 _
Rail and water	- -	-	-		-	- -	
Other and unknown modes	s	s	s	s	s	s	15

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

	Value	е	Tor	ns	Ton-ı	miles	
SCTG code, description, and mode of transportation	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment
SCTG 19, COAL AND PETROLEUM PRODUCTS, N.E.C.							
Total	82	100.0	s	s	s	s	s
Single modes	81	99.0	s	s	s	s	s
Truck ¹	81	98.9	S	S	S	s	S
For-hire truck Private truck	S 53	64.1	S S	S S S	S	S S	70 S
Rail	-	-	-	-	-	-	-
Water Shallow draft		-	-	_	_	_ _	_
Great Lakes Deep draft		-	-	_	_ _	_ _	_ _
Air (includes truck and air)	S -	S -	s -	S -	S S	S S	438 S
Multiple modes	-	-	-	-	-	-	-
Parcel, U.S. Postal Service or courier	_	_	_	_	_	_	_
Truck and water Rail and water		-	-	-	_ _	_ _	- -
Other multiple modes	_	-	-	-	-	-	=
Other and unknown modes	S	S	S	S	S	S	14
SCTG 20, BASIC CHEMICALS							
Total	s	s	s	s	2	100.0	56
Single modes	s	s	s	s	2	99.9	s
Truck ¹ For-hire truck Private truck	S S S	S S S	\$ \$ \$	S S S	2 S S	98.4 S S	S 68 S
Rail	-	-	-	-	-	-	-
Water	_	-	-	_	-	_	-
Shallow draft Great Lakes Deep draft		=	=	_ _ _		_ _	=======================================
Air (includes truck and air)	S -	S -	s -	S -	S S	S S	749 S
Multiple modes	s	s	s	s	s	s	102
Parcel, U.S. Postal Service or courier	s	s	s	S	S	s	102
Truck and water Rail and water	_	-	_	-	=	-	_
Other multiple modes	-	-	-	-	_	-	-
Other and unknown modes	s	s	s	s	s	s	65
SCTG 21, PHARMACEUTICAL PRODUCTS							
Total	s	s	s	s	s	s	234
Single modes	s	s	s	s	s	s	89
Truck ¹ For-hire truck Private truck	888	S S S	S S S	S S S	S - S	S 1.6 S	88 279 60
Rail	-	-	-	-	-	-	-
Water Shallow draft Great Lakes Shallow draft Great Lakes	_ _ _	- - -	- - -	_ _ _	- - -	_ _ _	- - -
Deep draft Air (includes truck and air)	- S	- S	- S	- S	- S	- s	430
Pipeline ²	-	-	-	-	S	S	S
Multiple modes	S	S	S	S	S	S	413
Parcel, U.S. Postal Service or courier	S - -	S -	S -	S -	S -	S -	413
Truck and water Rail and water Other multiple modes	_ _ _	- - -	- - -	_ _ _	_ _ _	- - -	_ _ _
Other and unknown modes	s	s	s	s	s	s	1 055

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

	Value		Tons	;	Ton-	miles	
SCTG code, description, and mode of transportation	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment
SCTG 22, FERTILIZERS							
Total	s	s	s	s	s	s	274
Single modes	s	s	s	s	s	s	297
Truck ¹	s	s	s	S	S	s	192
For-hire truck Private truck	S S	S S	S	S S S	S S	S	259 72
Rail	-	-	-	-	-	-	_
Water Shallow draft Shallow draft	S -	S _	S -	S -	S -	S -	2 441
Great Lakes Deep draft	S	S	s	S	S	- S	2 441
Air (includes truck and air)		_	-	-	- S	_ S	- S
Multiple modes	s	s	s	s	s	s	385
Parcel, U.S. Postal Service or courier	_	-	-	_	<u>-</u>	_	_ _
Truck and water Rail and water	S -	S	S -	S	S	S -	385
Other multiple modes	-	-	-	-	-	-	-
Other and unknown modes	S	s	s	s	s	s	25
SCTG 23, CHEMICAL PRODUCTS AND PREPARATIONS, N.E.C.							
Total	31	100.0	19	100.0	6	100.0	354
Single modes	23	76.2	17	88.8	s	s	s
Truck ¹	22 12	70.2 39.4	17 10	87.4 54.0	S S	S	S 322
Private truck	9	30.8	6	33.3	Š	SS	47
Rail	-	-	-	-	-	-	-
Water Shallow draft Shallow dr	_	-	_	_	<u>-</u>	- -	-
Great Lakes		-	-	-	-	- -	=
Air (includes truck and air)	S -	S -	S -	S -	S S	S S	627 S
Multiple modes	s	s	s	s	s	s	1 157
Parcel, U.S. Postal Service or courier	s	s	s	S	S	s	1 172
Truck and rail	_ S	- S	s	S	S	_ S	307
Rail and water		-	-	-		_ _	_
Other and unknown modes	s	s	s	s	s	s	s
SCTG 24, PLASTICS AND RUBBER							
Total	79	100.0	22	100.0	s	s	229
Single modes	73	92.1	21	95.3	s	s	110
Truck ¹ For-hire truck Private truck	68 S 35	86.9 S 44.9	21 S 11	93.2 S 47.9	S S S	s s s	69 319 26
Rail	_	-	-	-	_	_	_
Water	s	s	s	s	S	s	86
Shallow draft Great Lakes	S -	S -	S	S -	S -	S	85 -
Deep draft	S	S	S	S	S	S	87
Air (includes truck and air)	S _	S -	-	.9	s	4.7 S	716 S
Multiple modes	4	5.7	s	s	-	9.5	1 140
Parcel, U.S. Postal Service or courier	3 _	3.4	-	.6		3.0	1 303
Truck and water	2 -	2.3	S _	S -	S -	S -	253
Other multiple modes	-	-	-	-	=	-	-
Other and unknown modes	2	2.2	s	s	S	s	s

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

To explanation of terms and meaning of abbreviations and symbols, st	Val		То		Ton-miles			
SCTG code, description, and mode of transportation	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment	
SCTG 25, LOGS AND OTHER WOOD IN THE ROUGH								
Total	s	s	s	s	s	s	s	
Single modes	s	s	s	s	s	s	30	
Truck¹ For-hire truck Private truck	S S S	S S S	S S S	S S S	S S S	S S S	30 43 20	
Rail	_	_	_	_	_	_	_	
Water	s	S	s	s	s	s	35	
Shallow draft Great Lakes Deep draft	- S	- S	- - S	- - S	- S	- - S		
Air (includes truck and air)			=	_ _	- S	- S	_ S	
Multiple modes	-	-	-	_	-	-	_	
Parcel, U.S. Postal Service or courier		_ _	_ _				_ _	
Truck and water	_ _	_ _	- -	_ _	_ _	_ _	_	
Other multiple modes	-	-	-	-	-	_	-	
Other and unknown modes	S	S	S	s	S	S	314	
SCTG 26, WOOD PRODUCTS								
Total	60	100.0	273	100.0	23	100.0	67	
Single modes	47	77.9	158	58.0	S	S	65	
Truck ¹ For-hire truck Private truck	21 9 11	34.3 15.1 19.2	S S 10	S S 3.7	\$ \$ \$	\$ \$ \$	35 79 S	
Rail	_	-	-	_	_	_	_	
Water Shallow draft Great Lakes Deep draft	S S -	S S -	S S -	\$ \$ -	S S -	S S -	191 191 –	
Air (includes truck and air)	S	S -	S -	S -	S S	SS	479 S	
Multiple modes	s	s	s	s	s	s	587	
Parcel, U.S. Postal Service or courier	_	_	_	_	_	_	_	
Truck and rail	- S	S	_ S	s s	- S	s S	_ 587	
Rail and water	_ _		_ _	_	_ _	_ _	_ _	
Other and unknown modes	s	s	s	s	s	s	8	
SCTG 27, PULP, NEWSPRINT, PAPER, AND PAPERBOARD								
Total	s	s	s	s	s	s	664	
Single modes	17	71.1	5	69.0	s	s	31	
Truck¹ For-hire truck Private truck	17 S 17	71.1 S 70.4	5 S 5	69.0 S 67.9	S S S	S S S	31 357 S	
Rail	_	-	-	_	-	-	_	
Water Shallow draft	_	-	_ _		-		_ _	
Great Lakes Deep draft	_ _		=	_ _	_ _	_ _	_ _	
Air (includes truck and air)	_		=	_ _	- S	- S	_ S	
Multiple modes	s	s	s	s	s	s	1 240	
Parcel, U.S. Postal Service or courier	S -	S _	S -	S -	S -	S -	1 240	
Truck and water		_ _	_ _		_ _	_ _	_ _	
Other multiple modes	_	-	-	-	_	-	_	
Other and unknown modes	s	s	l s	l s	s	s	1 686	

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

	Value		Tons		Ton-r	niles		
SCTG code, description, and mode of transportation	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment	
SCTG 28, PAPER OR PAPERBOARD ARTICLES								
Total	29	100.0	9	100.0	_	100.0	s	
Single modes	25	87.9	9	95.2	-	40.1	s	
Truck1	24	82.9	9	94.3	_	28.8	27	
For-hire truck Private truck	2 22	6.9 76.0	8	5.2 89.1	S -	8.5 8.5	126 S	
Rail	-	-	-	-	-	-	-	
Water Shallow draft	_	-	_	_			-	
Great Lakes		-	-	-	-	-	_	
Air (includes truck and air)	S -	S -	S -	S -	S S	S S	677 S	
Multiple modes	2	7.9	s	s	s	s	541	
Parcel, U.S. Postal Service or courier	2	7.9	s	s	s	s	541	
Truck and rail	_	-	-	-	-	_	_ _	
Rail and water Other multiple modes	_	-	-	_	-	-	_	
Other and unknown modes	1	4.2	s	s	s	s	s	
SCTG 29, PRINTED PRODUCTS								
Total	176	100.0	106	100.0	10	100.0	397	
Single modes	156	88.9	102	96.2	9	89.4	s	
Truck¹ For-hire truck Private truck	141 8 133	80.3 4.4 75.9	93 S 92	87.6 S 86.4	S S S	S S S	S S S	
Rail	-	-	-	-	-	-	-	
Water	_	_	_	_	_	_	_	
Shallow draft Great Lakes Deep draft	_ _ _	- - -	- - -	_ _ _	- - -	- - -	- - -	
Air (includes truck and air)	15	8.7	S -	S -	S S	S S	643 S	
Multiple modes	10	5.6	s	s	s	s	1 451	
Parcel, U.S. Postal Service or courier	10	5.6	s	s	s	s	1 451	
Truck and railTruck and water	_	-	_	_	-	_	=	
Rail and water	_	-	-	_	-		- -	
Other and unknown modes	s	s	s	s	-	4.3	s	
SCTG 30, TEXTILES, LEATHER, AND ARTICLES OF TEXTILES OR LEATHER								
Total	21	100.0	1	100.0	_	100.0	579	
Single modes	s	s	1	73.5	s	s	s	
Truck ¹ For-hire truck	S S	S	1 S	69.0 S	-	21.7 14.0	S 214	
Private truck	7	33.0	1	52.9	-	7.6	17	
Rail	-	-	-	-	-	-	_	
Water	_	-	-	_	-	-	_	
Great Lakes		_	_	_	-	-	=	
Air (includes truck and air)Pipeline ²	S _	S -	S -	S -	S S	S S	909 S	
Multiple modes	6	29.4	-	15.1	-	58.0	1 306	
Parcel, U.S. Postal Service or courier	6	29.4	_	15.1	-	58.0	1 306	
Truck and rail . Truck and water Rail and water	_	-	- -	_ _ _	-	-	-	
Other multiple modes	_	-	-	_	-	-	_	
Other and unknown modes	2	9.5	s	s	s	s	27	

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SCTG code, description, and mode of transportation	Value		Tons		Ton-miles			
	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment	
SCTG 31, NONMETALLIC MINERAL PRODUCTS								
Total	60	100.0	s	s	12	100.0	40	
Single modes	58	95.3	s	s	10	85.0	34	
Truck¹	57	93.9	S	S	10	84.9	27	
For-hire truck Private truck	S	S S	S	S S	S 10	82.0	301 17	
Rail	-	-	=	_	=	-	=	
Water Shallow draft	S -	s -	S -	S -	S -	S -	1 206	
Great Lakes	S	- S	s	s	S	- S	1 206	
Air (includes truck and air)	S -	S -	S -	S -	S	SS	326 S	
Multiple modes	s	s	s	s	s	s	s	
Parcel, U.S. Postal Service or courier	S	s	S	s	S	s	S	
Truck and rail . Truck and water Rail and water	_	-	-	- - -	-	_ _ _	-	
Other multiple modes	=	=	Ξ	Ξ	Ξ	=	Ξ	
Other and unknown modes	3	4.4	s	s	s	s	s	
SCTG 32, BASE METAL IN PRIMARY OR SEMIFINISHED FORMS AND IN FINISHED BASIC SHAPES								
Total	55	100.0	44	100.0	3	100.0	76	
Single modes	48	86.7	35	80.9	3	87.2	68	
Truck ¹	46 6	84.7 10.2	35 4	79.7 9.6	2	80.3 19.0	60 247	
Private truck	41	74.4	31	70.1	Ś	S	38	
Rail	-	-	-	-	-	-	=	
Water Shallow draft	_	_	_ _			_		
Great Lakes		-		_ _	-			
Air (includes truck and air)	S -	S -	S -	S -	S	S S	434 S	
Multiple modes	s	s	s	s	s	s	1 081	
Parcel, U.S. Postal Service or courier	s	s	S	s	S	s	1 094	
Truck and rail	- S	- s	S	_ S	_ S	- S	- 463	
Rail and water	_	_	_	_	_		_	
Other and unknown modes	7	13.1	e	٠	e	ا و	70	
SCTG 33, ARTICLES OF BASE METAL	,	10.1	J		3		70	
Total	147	100.0	44	100.0	10	100.0	158	
Single modes .	126	85.4	42	95.3	9	93.3	105	
Truck ¹	116	79.0	40	90.7	7	76.2	S	
For-hire truck Private truck	43 69	29.2 47.1	20 19	45.9 43.3	6 1	63.7 8.6	251 S	
Rail	-	-	-	-	-	-	-	
Water Shallow draft	_	-	_	_ _	_		_	
Great Lakes Deep draft	_ _	- -	_ _	_ _		_ _	_ _	
Air (includes truck and air)	10	6.4	S -	S -	S S	S	708 S	
Multiple modes	9	6.1	1	1.3	s	s	599	
Parcel, U.S. Postal Service or courier	7	4.7	_	.7	-	2.1	621	
Truck and rail	- S	- s	S	- s	_ S	s s	- S	
Rail and water	_	_					=	
Other and unknown modes	12	8.5	1	3.4	_	1.2	124	

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	Value		Tons		Ton-miles		
SCTG code, description, and mode of transportation	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment
SCTG 34, MACHINERY							
Total	227	100.0	14	100.0	6	100.0	283
Single modes	150	65.9	10	72.8	4	68.4	227
Truck ¹	75	33.1	5	36.7	s	s	67
For-hire truck Private truck	S 39	S 17.1	2 3	16.5 18.1	S -	S 1.3	334 26
Rail	-	-	-	-	-	-	-
Water Shallow draft Great Lakes Deep draft	S S - S	\$ \$ - \$	\$ \$ - \$	\$ \$ - \$	S S - S	\$ \$ - \$	367 91 - 1 178
Air (includes truck and air)	67	29.2	S -	S _	3	44.2 S	789 S
Multiple modes	s	s	s	s	s	s	642
Parcel, U.S. Postal Service or courier	s	s	S	S	S	S	665
Truck and rail	- S	- S	- S	- S	- S	- S	S
Rail and water Other multiple modes	_	-	_	_	_	_	-
Other and unknown modes	27	12.1	2	11.2	s	s	197
SCTG 35, ELECTRONIC AND OTHER ELECTRICAL EQUIPMENT AND COMPONENTS AND OFFICE EQUIPMENT							
Total	224	100.0	15	100.0	3	100.0	218
Single modes	167	74.6	14	93.4	s	s	s
Truck ¹ For-hire truck	143 S	64.0 S	14 S	91.1 S	S	S	41 S
Private truck	108	48.4	Š	Š	=	7.4	32
Rail	-	-	-	-	-	-	_
Water Shallow draft Shallow draft	S S	S S	S S	S S	S S	S S	486 145
Great Lakes	S	S	S	S	S	S	936
Air (includes truck and air)Pipeline ²	23	10.3	_	2.2	_ S	12.7 S	1 412 S
Multiple modes	48	21.6	1	4.4	1	20.8	864
Parcel, U.S. Postal Service or courier	48	21.6	1	4.4	1	20.7	860
Truck and rail	_ S	- S	_ S	_ S	_ S	_ S	4 833
Rail and water	_	-	_	_	-	_	_ _
Other and unknown modes	9	3.8	-	2.2	s	s	s
SCTG 36, MOTORIZED AND OTHER VEHICLES (INCLUDING PARTS)							
Total	159	100.0	20	100.0	3	100.0	s
Single modes	128	80.2	17	84.0	3	83.9	S
Truck ¹ For-hire truck Private truck	112 38 75	70.5 23.6 46.9	15 5 10	77.2 25.2 51.9	2 1 1	62.8 46.4 16.3	S 223 S
Rail	-	-	-	-	-	-	=
Water	S	s	s	S	s	s	113
Shallow draft Great Lakes Deep draft	S - S	S - S	S - S	S - S	S - S	S - S	132 - 22
Air (includes truck and air)	13	8.3	1	4.3	S	S	529 S
Multiple modes	S	s	s	s	s	s	566
Parcel, U.S. Postal Service or courier	s	s	_	2.0	S	s	628
Truck and rail	S	- S	S	S	s	- S	141
Rail and water	_	-	-	-	-		- -
Other and unknown modes	s	s	s	s	s	s	s

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

	Value		Tons		Ton-miles		
SCTG code, description, and mode of transportation	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment
SCTG 37, TRANSPORTATION EQUIPMENT, N.E.C.							
Total	s	s	s	s	s	s	330
Single modes	s	s	s	s	s	s	374
Truck ¹ For-hire truck Private truck	S S S	S S S	S S S	S S S	SSS	S S S	37 204 28
Rail	_	-	-	-	_	-	_
Water Shallow draft Great Lakes	_ _ _	_ 	_ 	_ _ _	- - -	_ 	_
Deep draft	-	-	-	-	-	-	- 4 400
Air (includes truck and air)	S -	S -	S -	S -	S	S S	1 438 S
Multiple modes	s	S	s	s	s	s	105
Parcel, U.S. Postal Service or courier	S -	S -	S -	S -	S -	S -	105
Truck and water	_ _	_ _	_ _	_ _	_ _	_	_ _
Other multiple modes	-	-	-	-	-	-	-
Other and unknown modes	S	S	S	s	S	S	96
SCTG 38, PRECISION INSTRUMENTS AND APPARATUS							
Total	S	s	S	S	S	S	S
Single modes	S	s	s	S	S	S	S
Truck ¹ For-hire truck Private truck	\$ \$ \$	S S S	S S S	S S S	\$ \$ \$	\$ \$ \$	S 361 S
Rail	-	-	-	-	-	-	-
Water Shallow draft		<u>-</u>	- -	_ _	_	-	_ _
Great Lakes Deep draft	_ _	_ _	- -	- -	_ _	- -	- -
Air (includes truck and air)	S _	S -	S -	S -	SS	S S	1 721 S
Multiple modes	s	s	s	s	s	s	s
Parcel, U.S. Postal Service or courier	S _	S -	S -	S -	S -	S -	S -
Truck and water	_	_	_	_		_	
Other multiple modes	-	=	-	-	=	-	=
Other and unknown modes	S	S	S	s	S	S	3
SCTG 39, FURNITURE, MATTRESSES AND MATTRESS SUPPORTS, LAMPS, LIGHTING FITTINGS, AND ILLUMINATED SIGNS							
Total	5	100.0	1	100.0	s	s	188
Single modes	4	80.6	-	82.4	s	s	s
Truck ¹ For-hire truck Private truck	3 S 3	72.5 S 56.8	- S -	63.0 S 58.0	SSS	S S S	S 139 S
Rail	_	-	-	_	-	-	-
Water Shallow draft	_	_ _	- -	_ _	_ _	_ _	_ _
Great Lakes Deep draft	_ _	_ _	_ _	_ _	- -	_ _	_ _
Air (includes truck and air)	S -	S -	S -	S -	SS	S S	579 S
Multiple modes	s	s	s	s	s	s	480
Parcel, U.S. Postal Service or courier	S _	S -	S -	S -	S -	S -	480
Truck and water Rail and water				_ _	_ _	_ _	-
Other multiple modes	- s	- S	- S	_ s	- S	- s	-
Other and unknown modes	· 51	S	S	· S	S	SI	7

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

	Value		Tons		Ton-miles			
SCTG code, description, and mode of transportation	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment	
SCTG 40, MISCELLANEOUS MANUFACTURED PRODUCTS								
Total	379	100.0	10	100.0	3	100.0	596	
Single modes	311	82.1	8	76.6	1	43.9	207	
Truck ¹	61	16.2	8	74.9	1	34.4	80	
For-hire truck Private truck	17 44	4.5 11.6	2 6	21.9 53.0	1 -	26.2 8.2	385 43	
Rail	-	-	-	_	-	-	-	
Water Shallow draft Shallow draft	_	- -	-	-		_	_ _	
Great Lakes	_ _	_		_ _	_ _	-	_ _	
Air (includes truck and air)Pipeline ²	S _	S -	_	1.7	- S	9.5 S	1 026 S	
Multiple modes	61	16.2	2	16.9	1	54.1	1 112	
Parcel, U.S. Postal Service or courier	59	15.7	2	15.5	1	49.8	1 112	
Truck and railTruck and water	- S	- S	S	s S	- S	- S	1 001	
Rail and water		_				_	_ _	
Other and unknown modes	7	1.8	s	s	s	s	174	
SCTG 41, WASTE AND SCRAP								
Total	s	s	s	s	s	s	1 051	
Single modes	s	s	s	s	s	s	1	
Truck ¹	s	s	S	S	S	s	1	
For-hire truck Private truck	s	S	S	S	S	s	1	
Rail	s	s	S	s	S	s	1	
Water	_	-		_	_	_	_	
Shallow draft Geat Lakes Deep draft	- - -	- - -	- - -	_ _ _	- - -	- - -	- - -	
Air (includes truck and air)	_	-	_	_	_	_	_	
Pipeline ²	_	-	_	_	S	S	S	
Multiple modes	S	S	S	S	S	S	1 611	
Parcel, U.S. Postal Service or courier	S .	S	S	S -	S -	S	2 152	
Truck and water	S	S	S	s	S	s	1 528	
Rail and water		-	_	_		_		
Other and unknown modes	_	-	-	_	_	_	-	
SCTG 43, MIXED FREIGHT								
Total	_	-	-	_	-	_	-	
Single modes	-	-	-	-	-	-	-	
Truck ¹	_	-		_	_	_	_	
For-hire truck Private truck	-	-	_	-		- -	_	
Rail	-	-	-	-	-	-	-	
Water Shallow draft	_	_	_		_	_	=	
Great Lakes Deep draft	_ _	_ _	_ _	_ _	_ _	_ _	_ _	
Air (includes truck and air)	_	_	<u>-</u>	_	_ S	_ S	_ S	
Multiple modes	_	_	_	_	_		-	
Parcel, U.S. Postal Service or courier	_	_	_	_	_	_	=	
Truck and rail	-	-	_	_	_	_	_	
Rail and water		=	_	_		-	_ _	
Other multiple modes	-	-	=	_	_	-	_	
Other and unknown modes	- 1	-1	-	-	-	ı – l	-	

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

	Value		Tons		Ton-miles		
SCTG code, description, and mode of transportation	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	Average miles per shipment
COMMODITY UNKNOWN							
Total	4	100.0	1	100.0	-	100.0	s
Single modes	4	84.5	1	98.0	s	s	s
Truck ¹ For-hire truck Private truck	4 S S	83.7 S S	1 S 1	97.6 S 93.5	SSS	\$ \$ \$	S 514 3
Rail	_	_	-	_	_	-	_
Water Shallow draft Great Lakes Deep draft	- - - -	- - - -	- - - -	- - - -	- - -	- - - -	- - - -
Air (includes truck and air)	s -	S -	s -	s -	S S	S S	431 S
Multiple modes	s	s	s	s	s	s	422
Parcel, U.S. Postal Service or courier Truck and rail Truck and water Rail and water Other multiple modes	S - - - -	S - - - -	S - - - -	S - - - -	\$ - - -	S - - -	422 - - - - -
Other and unknown modes	s	s	s	s	s	s	870

Note: Data exclude shipments of SCTG 16, Crude Petroleum. See the section "Industry Coverage" for additional information.

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^{1&}quot;Truck" as a single mode includes shipments which went by private truck only, for-hire truck only, or a combination of private truck and for-hire truck.
2CFS data for pipeline exclude most shipments of crude oil. See "About the Data" section for details of CFS coverage.

Table 7. Shipment Characteristics by State of Destination for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

[For explanation of terms and meaning of appreviations and symbols, see into		lue		ons	Ton-miles	
State of destination	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent
Total	6 653	100.0	19 673	100.0	7 047	100.0
NEW ENGLAND STATES						
Connecticut Maine Massachusetts Mes Hampshire Rhode Island Vermont	000000	000000	999999	000000	000000	999999
MIDDLE ATLANTIC STATES						
New Jersey New York Pennsylvania	S 18 5	S .3 -	\$ \$ -	S S -	S S -	S S -
EAST NORTH CENTRAL STATES						
Illinois Indiana Michigan Ohio Wisconsin	1 S 1 - S	- S - S	- - S - S	- - S - S	88 8	- - - - - - -
WEST NORTH CENTRAL STATES						
lowa Kansas Minnesota Missouri Nebraska North Dakota South Dakota	9999999	999999	999999	999999	000000 I	999999
SOUTH ATLANTIC STATES						
Delaware	9999999 9 1	9999999 9	88 - 88 6 - 8 -	88 888 8	00 000 0	\$\$ - \$ \$\$ \$ - \$ - \$ - \$
EAST SOUTH CENTRAL STATES						
Alabama . Kentucky	9999	\$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$	\$ \$ \$ \$ \$ \$	9999	S S S S S
WEST SOUTH CENTRAL STATES						
Arkansas Louisiana Oklahoma Texas	9999	\$ \$ \$ \$ \$ \$	\$ \$ \$ -	\$ \$ \$ -	\$ \$ \$ 1	\$ \$ \$ -
MOUNTAIN STATES						
Arizona Colorado Idaho. Montana Nevada New Mexico Utah Wyoming	9999 I 999	9999 I 999	88888888	88888888	<i>ათათათათა</i>	88888888
PACIFIC STATES						
Alaska. California Hawaii. Oregon Washington	5 376 S S S 878	80.8 S S S 13.2	17 448 S S S S	88.7 S S S S	2 624 S S S S	37.2 S S S S

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Table 8. Inbound Shipment Characteristics by State of Origin for State of Destination: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text. Detail may not add to total because of rounding]

	Va	lue	To	ons	Ton-miles		
State of origin	Number (million dollars)	Percent	Number (thousands)	Percent	Number (millions)	Percent	
Total	12 610	100.0	20 571	100.0	8 061	100.0	
NEW ENGLAND STATES							
Connecticut Maine Massachusetts New Hampshire Rhode Island Vermont	12 8 33 8 8 8	- 63688	- S 1 S S	101000	193999	9 - 999	
MIDDLE ATLANTIC STATES							
New Jersey New York Pennsylvania	54 S 44	.4 S .4	1 S 3	- S -	4 S 6	- S -	
EAST NORTH CENTRAL STATES							
Illinois Indiana Michigan Ohio Wisconsin	109 136 13 70 64	.9 1.1 .1 .6 .5	6 13 1 S S	- - - - - - - - - - - -	9 29 2 S S	.1 .4 - S S	
WEST NORTH CENTRAL STATES							
lowa Kansas Minnesota Missouri Nebraska North Dakota South Dakota	11 S 47 52 7 S S	- 8 .4 .4 - 8 8	1 8 3 5 8 8 8	100110000	1 8 12 8 6	999.1999 1999	
SOUTH ATLANTIC STATES							
Delaware District of Columbia Florida Georgia Maryland North Carolina South Carolina Virginia West Virginia	S - 499 399 8 8 48 255 27 S	S4 .34 .4 .2 .2 .2 .2 .5	S - 2 2 2 S 3 3 -	8 8	S - S 5 5 S 9 4 7 S	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	
EAST SOUTH CENTRAL STATES							
Alabama . Kentucky . Mississippi . Tennessee .	5 S S 29	- S S .2	S S S S 2	\$ \$ \$ \$ \$	SSS 5	S S S -	
WEST SOUTH CENTRAL STATES							
Arkansas Louisiana Oklahoma Texas	7 S 78 S	- S.6 S	S S 35 47	S S 2 2	S S 65 S	S S 8 S	
MOUNTAIN STATES							
Arizona . Colorado . Idaho . Montana . Nevada . New Mexico . Utah . Wyoming .	22 S 6 S 17 39 S	.2 S S S .1 .3 S	92999999	0 0000000	0308088 -	9 99999	
PACIFIC STATES							
Alaska. California Hawaii Oregon Washington	5 376 764 S 1 007 2 535	42.6 6.1 S 8.0 20.1	17 448 131 S 171 2 446	84.8 .6 S .8 11.9	2 624 298 S 225 S	32.6 3.7 S 2.8 S	

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Appendix A. Comparability With the 1993 Commodity Flow Survey

The Commodity Flow Survey (CFS) restores a data program on commodity flows that the Census Bureau conducted as a part of its 5-year economic census program from 1963 through 1977. The CFS was first conducted in

1993. For the 1997 CFS, the Census Bureau incorporated improvements identified from the evaluation of previous surveys and additional research. The following table shows a comparison of the 1993 and 1997 surveys.

Item	1993	1997
1. Industry coverage	Manufacturers (minor exceptions)	Manufacturers (minor exceptions)
	Mining (except mining services and oil and gas extraction)	Mining (except mining services)
	All wholesale	All wholesale
	Video tape distributers	
	Catalog mail-order houses	Catalog mail-order houses
	Auxiliaries (e.g., warehouses)	Auxiliaries (e.g., warehouses)
Commodity classification system	Standard Transportation Commodity Classification (STCC), developed by the American Association of Railroads (AAR).	Standard Classification of Transported Goods (SCTG).
3. Sample size	Approximately 200,000 establishments were selected from a universe of about 800,000 in-scope establishments on the 1992 Standard Statistical Establishment List (SSEL).	Approximately 100,000 establishments were selected from a universe of about 800,000 in-scope establishments on the 1995 Standard Statistical Establishment List (SSEL).
4. Survey methodology	Respondents took a sample of their individual outbound shipments for a 2-week period during each of the four calendar quarters of 1993.	Respondents took a sample of their individual outbound shipments for a 1-week period during each of the four calendar quarters of 1997.
	Respondents reported key characteristics for each sampled shipment.	Respondents reported key characteristics for each sampled shipment.
5. Reported mode of transportation	Rail	Rail
·	For-hire truck	For-hire truck
	Private truck	Private truck
	Air	Air
	Inland water and/or Great Lakes	Shallow draft vessel
	Deep sea water	Deep draft vessel
	Pipeline	Pipeline
	Parcel, U.S. Postal Service, or courier	Parcel, U.S. Postal Service, or courier
	Other	Other
	Unknown	Unknown

Item	1993	1997
6. Data items requested on questionnaire	For each shipment:	For each shipment:
quodinina	Total value	Total value
	Total weight	Total weight
	Major commodity (STCC)	Major commodity (SCTG)
	All modes of transportation	All modes of transportation
	Multiple origins (respondents specifically requested to report all shipment origins for the sampled establishment and report the appropriate origin for each shipment; assumed to always be the mailing address if no other origins listed).	Single origin (assumed to be the mailing address unless the respondent provided a different physical location address).
	Destination	Destination
	Containerized (Y/N)	Containerized (Y/N)
	Hazardous material (Y/N)	Hazardous material (UN/NA codes)
	Export (Y/N)	Export (Y/N)
	If export, mode of export, foreign country,and city of destination.	If export, mode of export, foreign country, and city of destination.

Appendix B. Reliability of the Estimates

An estimate based on a sample survey potentially contains two types of errors—sampling and nonsampling. Sampling error occurs because characteristics differ among sampling units and because only a subset of the entire population is measured in a sample survey. Nonsampling error encompasses all other factors that contribute to the total error of a sample survey estimate. The accuracy of a survey result may be affected by these two types of errors.

Sampling and nonsampling errors are often measured by the quantities, bias and variance. The bias of an estimator of an unknown population value is the difference, averaged over all possible samples of the same size and design, between the estimator and the unknown population value. Any systematic error, or inaccuracy that affects all samples of a specified design in a similar way, may bias the resulting estimates. Variance is the squared difference, averaged over all possible samples of the same size and design, between an estimator and its average value. Descriptions of sampling and nonsampling errors for the 1997 Commodity Flow Survey (CFS) are provided in the following sections.

SAMPLING ERROR

Because the estimates are based on a sample, exact agreement with the results that would be obtained from a complete enumeration of all the shipments made in 1997 from all establishments included on the CFS sampling frame is not expected. However, because probability sampling was used at each stage of selection, it is possible to estimate the sampling variability of the survey estimates. For CFS estimates, sampling variability arises from each of the three stages of sampling. (See Appendix C for a description of the sample design.)

The particular sample used in this survey is one of a large number of samples of the same size and design that could have been selected. If all possible samples had been surveyed, under the same conditions, an estimate of an unknown population value could have been obtained from each sample. The estimates obtained from these samples give rise to a distribution of estimates for the unknown population value. A statistical measure of the variability among these estimates is the standard error, which can be approximated from any one sample. The coefficient of variation (or relative standard error) of an estimate is the standard error of the estimate divided by the estimate. Measures of sampling variability, such as the standard error or coefficient of variation, are estimated from the

sample and are also subject to sampling variability. (Technically, we should refer to the estimated standard error or the estimated coefficient of variation of an estimator. However, we have omitted this detail for the sake of brevity.) It is important to note that the standard error and coefficient of variation only measure sampling variability. They do not measure any biases in the estimates. All coefficients of variation are expressed as percents. Standard errors for the corresponding percentage estimates are also provided.

An estimate of an unknown population value and its approximate standard error can be used to construct a confidence interval. A confidence interval is a range about a given estimator that has a specified probability, or confidence, of containing the unknown population value. If, for each possible sample, an estimate of an unknown population value and the estimate's approximate standard error were obtained, then:

- 1. For approximately 90 percent of the possible samples, the interval from 1.65 standard errors below to 1.65 standard errors above the estimate would include the unknown population value.
- 2. For approximately 95 percent of the possible samples, the interval from two standard errors below to two standard errors above the estimate would include the unknown population value.

NONSAMPLING ERROR

Nonsampling error encompasses all other factors that contribute to the total error of a sample survey estimate and may also occur in censuses. It is often helpful to think of nonsampling error as arising from deficiencies or mistakes in the survey process. In the CFS, nonsampling error can be attributed to many sources: (1) nonresponse, (2) response errors, (3) differences in the interpretation of the questions, (4) mistakes in coding or keying the data obtained, and (5) other errors of collection, response, coverage, and processing. Although no direct measurement of the potential biases because of nonsampling error has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize its influence.

A potentially large source of bias in the estimates is due to nonresponse. Nonresponse is defined as the inability to obtain all the intended measurements or responses from all the selected establishments. Four levels of nonresponse can occur in the CFS: item, shipment, quarter (reporting week), and establishment. Item nonresponse

occurs either when a question is unanswered or the response to the question fails computer or analyst edits. Item nonresponse is corrected by imputation. (Imputation is the procedure by which a missing value is replaced by a predicted value obtained from an appropriate model.) Shipment, quarter, and establishment nonresponse are used to describe the inability to obtain sufficient information about a sampled shipment, quarter, or establishment, respectively, that prevents it from contributing to tabulations. Shipment and quarter nonresponse are corrected during the estimation procedure by reweighting. Reweighting allocates characteristics to the nonrespondents in proportion to the characteristics observed for the respondents. The amount of bias introduced by this nonresponse adjustment procedure depends on the extent to which the nonrespondents differ, characteristically, from the respondents. Establishment nonresponse is corrected during the estimation procedure by the SIC-level adjustment weight. (See Appendix C for a description of the estimation procedure.) In most cases of establishment nonresponse, none of the four questionnaires have been

returned to the Census Bureau, after several attempts to elicit a response. Approximately 67 percent of the sampled establishments provided at least one quarter of data that contributed to tabulations.

Some possible sources of bias that are attributed to respondent-conducted sampling include misunderstanding the definition of a shipment, constructing an incomplete frame of shipments from which to sample, ordering the shipment sampling frame by selected shipment characteristics, and selecting shipment records by a method other than the one specified in the questionnaire's instructions. We often contacted respondents who reported shipments having atypically large value or weight when compared to the rest of their reported shipments. Upon contact, if we are able to collect information on all of a given respondent's large shipments made either for a particular reporting week or for the entire quarter, then we identify these large shipments as certainty shipments. (See Appendix C for a description of how certainty shipments are used in the estimation process.)

Table B-1a. Measures of Reliability for Shipment Characteristics by Mode of Transportation for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

	Val	ıe	To	ons	Ton-		
Mode of transportation	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Average miles per shipment— coefficient of variation
All modes	11.1	-	16.1	-	37.9	-	12.5
Single modes	11.1	2.7	15.7	4.3	40.7	6.1	13.3
Truck For-hire truck Private truck	15.3 42.1 9.2	4.6 3.9 4.4	21.2 46.4 16.4	7.8 4.6 5.9	31.7 46.9 17.8	8.1 5.1 3.4	15.4 26.1 13.7
Rail	41.2	3.2	41.2	5.6	41.2	14.1	25.8
Water Shallow draft	39.5 S	5.7 S	48.5 47.4	7.4 .5	S 46.4	S 2.3	20.5 25.0
Great Lakes Deep draft	37.8	5.0	49.3	7.3	S	S	14.5
Air (includes truck and air)	36.4 32.5	2.4 .9	42.9 33.6	2.4	36.1 S	.3 S	11.1 S
Multiple modes	29.1	1.8	41.3	.6	28.8	2.4	14.1
Parcel, U.S. Postal Service or courier	28.1 S 35.8 - -	1.1 S .6 -	34.9 S 46.9 -	- S - - -	42.5 S 34.6 – –	.2 S 2.3 - -	14.2 30.3 16.5 —
Other and unknown modes	22.2	1.8	35.8	4.2	49.4	5.6	28.3

Note: For description of development and uses of measures of reliability, see Appendix B, Reliability of the Estimates.

Table B-1b. Measures of Reliability for Shipment Characteristics by Mode of Transportation for State of Origin: 1997 and 1993

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

		Value			Tons			Ton-miles		Average	miles per	shipment
Mode of transportation	Coefficient o		Standard error of		of variation of Imber	Standard error of	Coefficient of num		Standard error of	Coeffic varia		Standard error of
	1997	1993	percent change	1997	1993	percent change	1997	1993	percent change	1997	1993	percent change
All modes	11.1	15.6	15.7	16.1	22.5	23.2	37.9	18.6	27.3	12.5	11.8	17.2
Single modes	11.1	17.2	19.0	15.7	24.0	23.4	40.7	21.3	35.8	13.3	17.2	21.3
Truck For-hire truck Private truck	15.3 42.1 9.2	21.3 47.1 22.4	25.0 49.7 25.5	21.2 46.4 16.4	35.5 S 34.0	39.3 S 41.8	31.7 46.9 17.8	14.6 19.0 23.4	35.3 82.7 21.0	15.4 26.1 13.7	9.5 32.9 12.1	17.5 47.7 14.8
Rail	41.2	38.2	51.0	41.2	40.4	59.3	41.2	40.4	61.0	25.8	18.3	32.4
Water Shallow draft Great Lakes Shallow draft Great Lakes Shallow Draft Shallow Breat Lakes Shallow Breat	39.5 S	26.0 S	38.7 S	48.5 47.4	28.2 49.2	31.2 2.9	S 46.4	26.5 42.8	S 2.5	20.5 25.0	20.2 25.0	23.0 16.6
Deep draft	37.8	24.6	44.4	49.3	29.9	60.2	S	29.0	s	14.5	11.3	14.1
Air (includes truck and air)	36.4 32.5	19.6 48.9	141.9 20.6	42.9 33.6	13.2 S	106.3 S	36.1 S	18.7 S	73.5 S	11.1 S	9.2 S	11.4 S
Multiple modes	29.1	16.1	44.3	41.3	20.9	73.9	28.8	24.6	22.4	14.1	4.2	23.0
Parcel, U.S. Postal Service or courier Truck and rail Truck and water Rail and water Other multiple modes	28.1 S 35.8 —	22.4 S 36.0 S	47.2 S 70.5 - S	34.9 S 46.9 -	20.8 S 25.2 - S	21.1 S 42.3 - S	42.5 S 34.6 - -	17.7 S 26.3 - S	46.8 S 22.6 - S	14.2 30.3 16.5 —	4.5 29.8 15.9 – 31.6	24.4 8.5 8.4 –
Other and unknown modes	22.2	21.4	10.3	35.8	36.1	47.3	49.4	48.7	12.1	28.3	9.7	4.1

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Table B-1c. Standard Error of Percentage for Shipment Characteristics by Mode of Transportation for State of Origin: Percent of Total for 1997 and 1993

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

Made of transportation	Value (p	percent)	Tons (p	ercent)	Ton-miles (percent)		
Mode of transportation	1997	1993	1997	1993	1997	1993	
All modes	1	-	-	-	-	_	
Single modes	2.7	2.7	4.3	4.2	6.1	6.0	
Truck For-hire truck Private truck	4.6 3.9 4.4	4.0 4.2 4.4	7.8 4.6 5.9	7.0 S 7.0	8.1 5.1 3.4	2.6 .5 2.3	
Rail	3.2	2.6	5.6	6.2	14.1	8.2	
Water Shallow draft Great Lakes. Deep draft	5.7 S - 5.0	3.2 S - 2.7	7.4 .5 _ 7.3	6.2 3.6 – 6.3	\$ 2.3 - \$	11.8 2.1 — 11.4	
Air (includes truck and air) Pipeline	2.4 .9	.5 2.5	_ 2.4	_ S	.3 S	.2 S	
Multiple modes	1.8	1.2	.6	.3	2.4	1.6	
Parcel, U.S. Postal Service or courier Truck and rail Truck and water Rail and water Other multiple modes	1.1 S .6 -	.8 9 9 - 9	- S - -	- 9 .3 - 9	.2 S 2.3 - -	- S 1.5 - S	
Other and unknown modes	1.8	2.7	4.2	4.3	5.6	5.7	

Note: For description of development and uses of measures of reliability, see Appendix B, Reliability of the Estimates.

Table B-2. Measures of Reliability for Shipment Characteristics by Total Modal Activity for the State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

	Ton-r	niles			
Mode of transportation	Coefficient of variation of number	Standard error of percentage	Average miles per shipment— coefficient of variation		
Total	37.9	-	12.8		
Truck Rail Shallow draft Great Lakes Deep draft	30.3 41.2 46.2 - S	8.2 14.2 2.5 - S	12.9 25.8 20.6 – 20.4		
Air Parcel, U.S. Postal Service or courier Pipeline Other and unknown modes	27.5 42.5 S 49.4	.3 .2 S 5.6	13.7 14.2 S 27.7		

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Table B-3. Measures of Reliability for Shipment Characteristics by Mode of Transportation and Distance Shipped for State of Origin: 1997

	Val	ue	То	ins	Ton-	miles
Mode of transportation and distance shipped (based on Great Circle Distance)	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage
All modes	11.1	-	16.1	_	37.9	_
Less than 50 miles	18.0 15.6	5.0 .9	19.6 S	6.3	28.7	3.4
100 to 249 miles	34.2	1.1	S	S	S S	S S
250 to 499 miles	25.8 21.6	3.1 1.3	39.9 S	5.5 S	39.7 S	14.1 S
750 to 999 miles	S 24.2	S .8	S 18.3	s	S 15.9	S 1.7
1,500 to 1,999 miles 2,000 miles or more	\$ \$ 47.7	.0 S 2.3	S	s	S S	S S
	11.1	2.3	46.0 15.7	_	40.7	3
Single modes	18.0	5.5	16.6	6.7	25.0	4.1
50 to 99 miles 100 to 249 miles	15.9 19.2	1.0 .7	S 37.1	S .6	S 33.7	S 2.4
250 to 499 miles	29.3	4.0	40.1	6.9	40.1 27.7	14.8 4.0
500 to 749 miles	14.8 S	.8 S	44.6 S	.5 S	27.7 S	4.0 S
750 to 999 miles	31.3	1.0	25.3	.1	23.5	1.3
1,500 to 1,999 miles	S	S S	S S	S S	S S	S S
Truck	15.3	-	21.2	_	31.7	-
Less than 50 miles	18.8	2.9	18.2	3.1	26.6	5.6
50 to 99 miles	18.0 22.6	1.9 .9	\$ 42.5	S .7	\$ 43.2	S 3.1
250 to 499 miles	31.0 30.8	.4 .8	48.7 21.6	.2	S 22.9	S 1.1
750 to 999 miles	S	S	S	S	S	S
1,000 to 1,499 miles 1,500 to 1,999 miles	31.8 S	.4 S S	\$ \$ \$	S S S	45.5 S S	1.2 S S
2,000 miles or more	S 42.1	5		5		5
For-hire truck	42.1	-	46.4	- 70	46.9	_
50 to 99 miles	33.2	\$ 4.7	39.6 S	7.0 S	47.5 S S	9.3 S S
100 to 249 miles	23.2 27.1	3.2 .6	S 26.3	S .8	28.6	1.3
500 to 749 miles	29.2 S	3.1	33.5	2.1	35.7 S	6.8 S
750 to 999 miles	34.7	S 2.7	\$ \$ \$	S	47.1	8.1
1,500 to 1,999 miles	S	S S	S	S S	S S	S S
Private truck	9.2	-	16.4	_	17.8	-
Less than 50 miles	10.5 25.4	2.3 1.9	17.1 32.5	2.3 2.1	13.5 31.5	6.0 5.2
100 to 249 miles 250 to 499 miles	30.9 47.1	.7	49.0 S	.7 S	49.4	4.4
500 to 749 miles	S	S	Š	Š	S S	S S
750 to 999 miles	S	S S	S	S S	S	S S
1,500 to 1,999 miles 2,000 miles or more	- S	- S	- S	- S	- S	- S
Rail	41.2	_	41.2	_	41.2	_
Less than 50 miles	S	S	S	s	s	S
50 to 99 miles		=			_	
250 to 499 miles	41.2	.3	41.1	_ _	41.2	_ _
750 to 999 miles	_	_	_	_	_	_
1,000 to 1,499 miles 1,500 to 1,999 miles		_ _	_ _		_	_
2,000 miles or more	_	-	-	_	-	_
Water	39.5	-	48.5	_	S	S
Less than 50 miles	\$ \$ \$	\$ \$ \$	S S	S S	S S	\$ \$ \$ \$
100 to 249 miles	S	S	S S	S S	S S S	S S
500 to 749 miles	42.4	8.2	S	S	47.5	10.3
750 to 999 miles	S 38.9	S 13.4	S 30.1	S 15.9	S 27.8	S 18.0
1,500 to 1,999 miles	S	S S	S S	S S	S S	S S
Shallow draft	s	s	47.4	_	46.4	_
Less than 50 miles	s	S	S	S	s	S
50 to 99 miles	<i>\$</i> \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	S	S	S	\$ \$ \$ \$ \$	\$ \$ \$ \$
250 to 499 miles	SS	S S	S S	S S	S S	S S
750 to 999 miles	s	S	S	s	s	S
1,000 to 1,499 miles 1,500 to 1,999 miles		_	=			_ _
2,000 miles or more	- 1	-	_	-	ı — I	_

Table B-3. Measures of Reliability for Shipment Characteristics by Mode of Transportation and Distance Shipped for State of Origin: 1997—Con.

[1 of explanation of terms and meaning of appreviations and symbol	Val	110	То	ne	Ton-r	miles
Mode of transportation and distance shipped (based on Great Circle Distance)	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage
Single modes—Con.						
Great Lakes	_	_	_	_	_	_
Less than 50 miles	_	=	=	=	=	=
50 to 99 miles	_	_ _	-	_ _	_	_
250 to 499 miles	-	-	_	=	-	_
500 to 749 miles	-	_	_	-	_	_
750 to 999 miles			1			
1,500 to 1,999 miles	_	_	_	_	_	_
Deep draft	37.8		49.3		s	s
•		-		_		
Less than 50 miles	S S	S S	S	\$ \$ \$ \$	\$ \$ \$	\$ \$ \$ \$ 5.5
100 to 249 miles	S S	S S	S	S	S S	S S
500 to 749 miles	Š	Š	46.8	7.8	46.9	5.5
750 to 999 miles	S	S 10.0	S	S	SS	S S S
1,000 to 1,499 miles 1,500 to 1,999 miles	38.9 S	13.6 S	30.1 S	17.7 S S	S	S
2,000 miles or more	S	S	S	S	S	S
Air (includes truck and air)	36.4	-	42.9	-	36.1	-
Less than 50 miles	_ S	_ S	_ S	- 9	_ S	- 9
100 to 249 miles	30.5	4.0	S	S S	\$ 41.0	S S 3.7
250 to 499 miles	28.0 27.2	4.8 7.8	44.4 13.1	5.1 3.5	41.0 15.2	3.7 4.9
750 to 999 miles	30.3	2.9	30.0	3.1	31.4	2.6
1,000 to 1,499 miles	33.5 46.2	2.0 1.1	40.0 S	6.7 S	39.8 S	8.3 S
2,000 miles or more	S	S	Š	S S	Š	S
Pipeline	32.5	-	33.6	-	s	S
Less than 50 miles	32.5	=	33.6	-	S	S
50 to 99 miles	_	_	_	_ _	S	S
250 to 499 miles	_	_	_	_ _	\$ \$ \$ \$	\$ \$ \$ \$
750 to 999 miles	_	_	_	_		
1,000 to 1,499 miles	_	_	_	_	S	\$ \$ \$
1,500 to 1,999 miles	_	_	-	_ _	S S	S S
Multiple modes	29.1	_	41.3	_	28.8	_
Less than 50 miles	39.1	3.7	S	S S	s	S S
50 to 99 miles	40.5 35.4	2.5 1.1	S 32.3	S 3.1	\$ 43.0	S 2.1
250 to 499 miles	16.3 S	2.9 S	29.0 S	5.4 S	46.5 S	3.0 S
	3					
750 to 999 miles	29.8	S 3.5	\$ 43.0	S 6.1	\$ 44.3	S 6.5
1,500 to 1,999 miles	42.7 38.8	9.1 4.8	41.6 S	10.8 S	41.7 S	11.9 S
Parcel, U.S. Postal Service or courier	28.1		34.9	_	42.5	_
		_		_		_
Less than 50 miles	41.8 46.6	3.3 3.6	42.8 30.0	3.6 3.9	S 31.9	S .9
100 to 249 miles	38.0 19.2	1.2 4.9	39.7 S	2.3 S	S S	S S
500 to 749 miles	46.9	3.2	37.9	3.0	42.5	4.0
750 to 999 miles	39.2	1.3	31.6	1.1	31.7	1.0
1,000 to 1,499 miles 1,500 to 1,999 miles	S S	S S	42.2 40.4	1.2 .1	S 46.0	S .1
2,000 miles or more	32.9	5.1	26.9	2.0	28.1	4.0
Truck and rail	s	s	s	s	s	s
Less than 50 miles	s	S	S	S	S	S
50 to 99 miles	S -	S _	S -	S -	S -	S -
250 to 499 miles	_	=			=	_
500 to 749 miles	-					_
750 to 999 miles			_ _	_ _	_ _	_ _
1,500 to 1,999 miles 2,000 miles or more	_ _	_ _	_ _	- -	_ _	_
	-					_
Truck and water	35.8	-	46.9	_	34.6	-
Less than 50 miles	S -	S -	S -	S -	S -	S -
100 to 249 miles	S 41.9	S 4.1	S 37.7	S 5.7	S 39.0	S 2.7
500 to 749 miles	41.9 S	4.1 S	37.7 S	5.7 S	39.0 S	2.7 S
750 to 999 miles	S	S	S	S	S	S
1,000 to 1,499 miles 1,500 to 1,999 miles	37.4 47.1	10.1 12.5	43.2 41.8	7.8 10.3	44.5 41.8	8.9 12.4
2,000 miles or more	S	S	S	S	S	S

Table B-3. Measures of Reliability for Shipment Characteristics by Mode of Transportation and Distance Shipped for State of Origin: 1997-Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

Mode of transportation and distance shipped	Val	ue	То	ns	Ton-	miles
(based on Great Circle Distance)	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage
Multiple modes - Con.						
Rail and water	-	-	_	-	-	-
Less than 50 miles 50 to 99 miles 100 to 249 miles 250 to 499 miles 500 to 749 miles	- - - - -	- - - -	- - - - -	- - - -	- - - -	- - - -
750 to 999 miles 1,000 to 1,499 miles 1,500 to 1,999 miles 2,000 miles or more	- - - -	- - - -	- - - -	- - - -	- - - -	- - -
Other multiple modes	-	-	_	-	_	-
Less than 50 miles 50 to 99 miles 100 to 249 miles 250 to 499 miles 500 to 749 miles	- - - -	- - - -	- - - - -	- - - -	- - - -	- - -
750 to 999 miles	- - -	- - -	- - - -	- - -	- - -	=======================================
Other and unknown modes	22.2	-	35.8	-	49.4	-
Less than 50 miles 50 to 99 miles 100 to 249 miles 250 to 499 miles 500 to 749 miles	30.0 37.0 S S S	11.3 .4 S S S	47.4 S S 49.1 S	12.8 S S 4.3 S	\$ \$ \$ 40.0 \$	\$ \$ \$ 11.2 \$
750 to 999 miles	\$ \$ \$ \$	\$ 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	\$ \$ \$ \$	<i>\$\$</i>	\$ \$ \$ \$	\$ \$ \$ \$

Represents data cell equal to zero or less than 1 unit of measure.
 D Denotes figures withheld to avoid disclosing data for individual companies.
 S Data do not meet publication standards because of high sampling variability or other reasons.

Table B-4. Measures of Reliability for Shipment Characteristics by Mode of Transportation and Shipment Size for State of Origin: 1997

To explanation of terms and meaning of appreviations and symbols, see introduc-	Vali	ue	То	ons	Ton-	miles	
Mode of transportation and shipment size	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Average miles per shipment— coefficient of variation
All modes	11.1	_	16.1	-	37.9	-	12.5
Less than 50 lb	11.3 8.1 23.2	.9 .5 1.8	7.4 9.5 6.9	- - -	10.7 16.4 17.6	.1 _ .5	13.9 16.7 13.2
500 to 749 lb	S 17.0	1.8 S .2	13.9 20.2		18.7 17.0	.1	16.7 17.4
1,000 to 9,999 lb 10,000 to 49,999 lb	18.3 14.9	1.4 3.4	17.2 22.4	.8 5.4	12.8 27.2	2.0 6.6	27.5 24.7
50,000 to 99,999 lb 100,000 lb or more	14.9 23.6	1.3 4.5	24.0 23.0	2.0 6.9	38.5 41.6	4.4 12.1	18.6 S
Single modes	11.1	6	15.7 10.2	_	40.7 13.5	_	13.3 22.5
50 to 99 lb 100 to 499 lb 500 to 749 lb	11.1 27.3 S	.3 1.9 S	13.1 7.5	- - -	21.6 13.6 10.4	.5 .2	23.6 13.1
750 to 999 lb	18.2	.3	14.0 20.5	-	20.3	_	12.5 18.7
1,000 to 9,999 lb. 10,000 to 49,999 lb. 50,000 to 99,999 lb.	19.7 14.8 15.4	1.7 3.8 1.6	17.5 21.9 22.6	1.1 5.6 2.2	14.5 29.0 39.7	2.2 7.5 4.7	31.2 26.8 20.0
100,000 lb or more	25.1 15.3	4.8	21.0 21.2	7.2	44.4 31.7	12.8	S 15.4
Less than 50 lb	9.6	.7	10.2	_	17.4	-	26.2
50 to 99 lb 100 to 499 lb 500 to 749 lb	11.2 6.7 28.4	.3 1.3 .9	13.3 7.8 14.4	.1	19.2 12.6 14.4	.5 .3	23.6 14.7 15.8
750 to 999 lb	18.1	.9 .5 2.5	21.4 18.1	2.1	24.6 13.9	.1 3.6	21.7 27.8
10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	16.9 15.8 S	3.9 2.5 S	22.3 23.2 41.9	4.9 4.2 3.5	37.4 40.7	5.8 6.2 5.6	20.4 20.6 23.3
For-hire truck	42.1	-	46.4	-	44.1 46.9	5.6	26.1
Less than 50 lb	28.5 32.5	3.0 1.5	28.9 29.3	.4 .4	30.3 23.4	.3 .4	S 27.2
100 to 499 lb	7.9 29.8	4.2 1.7	16.1 28.5	1.0 .4	20.3 29.4	1.9 .8	8.7 S
750 to 999 lb 1,000 to 9,999 lb	43.1 S	.5 S	29.3 S	.2 S	33.6 27.3	.3 7.0	16.8 37.5
10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	26.4 S S	5.5 S	S 43.9	S 8.0	S S S	SSS	S S
Private truck	9.2	-	S 16.4	s -	17.8	-	47.1 13.7
Less than 50 lb	11.8 16.0	.9 .6	11.3 16.4	_ _	13.3 27.7	.1	19.9 22.9
100 to 499 lb 500 to 749 lb 750 to 999 lb	8.3 29.8	1.1 1.0	7.7 16.4	.1	22.0 19.5	.3 .2 .2	24.1 21.9
1,000 to 9,999 lb	22.9 7.1	.8 2.9	24.5 12.8	.1 2.4	30.0 15.5	2.3	19.5 22.8
10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	20.3 22.8 S	4.1 3.6 S	19.9 25.9 47.6	5.4 5.8 3.4	22.0 35.2 29.8	6.8 6.6 5.7	46.1 24.5 24.9
Rail	41.2	_	41.2	-	41.2	-	25.8
Less than 50 lb	_	_			_		_ _
100 to 499 lb 500 to 749 lb 750 to 999 lb	_	_ _ _	_	_ _ _	_ _ _		_ _ _
1,000 to 9,999 lb	_	_	-	_	-	_	_
10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	S 41.2	- S .1	S 41.2	- S -	S 41.2	S -	31.6 25.8
Water	39.5	_	48.5	-	s	s	20.5
Less than 50 lb	49.5 S	.2 S	39.7 S	- S	S	S S S	39.2 31.6
100 to 499 lb 500 to 749 lb 750 to 999 lb	S S S	SSS	35.0 S S	.2 S S	S S S	S S S	29.2 S 29.8
1,000 to 9,999 lb	42.4	1.2	S	s	S	S	42.3
10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	29.1 S S	16.3 S S	44.8 S	.7 S	S S	S	13.6 36.6 31.6
Shallow draft	s	s	47.4	-	46.4	-	25.0
Less than 50 lb	S -	S -	S -	S -	S -	S -	26.6
100 to 499 lb 500 to 749 lb 750 to 999 lb	S S -	S S -	S S -	S S -	S S -	S S -	29.3 30.1 —
1,000 to 9,999 lb	S S	S	S	S	S S S	S S S	31.6 27.6
50,000 to 99,999 lb 100,000 lb or more	S S	S	SS	SSS	S 44.8	9.8	27.9 27.8

Table B-4. Measures of Reliability for Shipment Characteristics by Mode of Transportation and Shipment Size for State of Origin: 1997—Con.

[For explanation of terms and meaning of appreviations and symbols, see introduc	Vali	ue	To	ons	Ton-miles			
Mode of transportation and shipment size	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Average miles per shipment— coefficient of variation	
Single modes—Con.								
Great Lakes	-	-	-	-	-	-	-	
Less than 50 lb	-	-	-	_	-	-	_	
100 to 499 lb 500 to 749 lb 750 to 999 lb	=		=	= =	=	=		
1,000 to 9,999 lb		_		_	_	_	_	
10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	=	_ _ _		_ _ _	- - -	=	_ _ _	
Deep draft	37.8	-	49.3	-	s	s	14.5	
Less than 50 lb	S	S S	S S	S S	S	S	33.2 31.6	
100 to 499 lb 500 to 749 lb 750 to 999 lb	49.5 S S	1.0 S S	46.8 S S	.3 S S	\$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$	35.0 31.6 29.8	
1,000 to 9,999 lb 10,000 to 49,999 lb 50,000 to 99,999 lb	\$ 35.3 \$	S 18.4 S	\$ \$ \$ \$	\$ \$ \$ \$	S S S	S S S	42.4 10.6 34.7	
100,000 lb or more Air (includes truck and air)	36.4	S	42.9	-	S 36.1	5	27.0 11.1	
Less than 50 lb	25.3	6.7	14.0	1.6	15.3	1.4	13.7	
50 to 99 lb 100 to 499 lb	44.6 S	4.1 S	26.4 21.9	2.1 5.0	34.8 22.2	2.0 6.3	11.7 6.7	
500 to 749 lb 750 to 999 lb	S 37.6	S 1.6	27.4 48.3	2.4 2.2	21.3 34.0	1.5 1.3	32.7 47.1	
1,000 to 9,999 lb	20.1 S	4.9 S	41.6 S	9.4 S	29.9 S	9.4 S	27.8 37.9	
50,000 to 99,999 lb. 100,000 lb or more	s	s s	s	s	s	s	31.6	
Pipeline	32.5	-	33.6	-	S	S	s	
Less than 50 lb	_	_ _	-		S	S	S	
100 to 499 lb	_	_ _	_	-	\$ \$ \$ \$ \$ \$ \$ \$ \$	S S S S	99999	
750 to 999 lb	- S	_ S	- S	- S	S			
10,000 to 49,999 lb	S S	S S	S S	S S	S S S	S S S S	\$ \$ \$ \$	
100,000 lb or more	35.2 29.1	10.8	36.9 41.3	11.0	28.8	S	14.1	
Less than 50 lb	27.7	6.9	25.6	2.6	18.8	3.0	14.8	
50 to 99 lb 100 to 499 lb 500 to 749 lb 750 to 999 lb	38.7 48.5 S S	2.0 3.0 S S	32.7 34.5 S S	1.1 7.3 S S	27.5 42.0 S S	1.3 6.5 S S	13.6 10.6 26.8 29.0	
1,000 to 9,999 lb	S 43.5	S 8.0	35.4 S	1.5 S	43.3 36.1	.6 12.1	36.2 22.8	
50,000 to 99,999 lb 100,000 lb or more	\$ \$ \$	S	3 S S	S	S 47.1	S 4.8	\$ \$ \$	
Parcel, U.S. Postal Service or courier	28.1	_	34.9	_	42.5	_	14.2	
Less than 50 lb	28.4	5.7	28.5	7.3	20.5	8.2	14.7	
50 to 99 lb 100 to 499 lb 500 to 749 lb	39.2 S S	3.8 S S	34.2 46.8	4.0 7.7	28.2 S S S	5.2 S S	16.0 17.2 26.8	
750 to 999 lb	S	S	s s	S S		S	29.0	
1,000 to 9,999 lb 10,000 to 49,999 lb	S -	S -	S -	S -	S -	S -	31.6	
50,000 to 99,999 lb	_		-	-	_ _	_	-	
Truck and rail	s	s	s	s	s	s	30.3	
Less than 50 lb	_		_			_		
100 to 499 lb	_	_ _			_ _	_		
750 to 999 lb	_	_	-	_	-	-	_	
1,000 to 9,999 lb 10,000 to 49,999 lb 50,000 to 99,999 lb	- - S	_ _ S	- - S	- - c	_ _ S	_ _ S	30.9	
100,000 lb or more	Š	Š	Š	S S	Š	Š	31.6	
Truck and water	35.8	_	46.9	-	34.6	-	16.5	
Less than 50 lb 50 to 99 lb 100 to 499 lb 500 to 749 lb	S S 41.4	S S 6.7	S S S	S S S	S S S	S S S	33.8 30.0 20.5	
750 to 999 lb	<u> </u>	_	_	_	_	_	_	
1,000 to 9,999 lb 10,000 to 49,999 lb 50,000 to 99,999 lb 100,000 lb or more	\$ 43.5 \$ \$	\$ 10.8 \$ \$	36.0 S S S	3.6 S S S	43.4 36.1 S S	2.5 11.3 S S	40.3 22.8 31.6 30.3	

Table B-4. Measures of Reliability for Shipment Characteristics by Mode of Transportation and Shipment Size for State of Origin: 1997—Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

	Val	ue	To	ons	Ton-	miles	
Mode of transportation and shipment size	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Average miles per shipment— coefficient of variation
Multiple modes—Con.							
Rail and water	-	-	-	-	_	-	-
Less than 50 lb	-	-	-	-	-	_	_
50 to 99 lb	_	_	_	_	_	_	_
100 to 499 lb	_	_	_	_	_	_	_
500 to 749 lb	_	_	_	_	_	_	_
750 to 999 lb	_	_	_	_	_	_	_
1,000 to 9,999 lb	_	_	_	_	_	_	_
10,000 to 49,999 lb	-	-	_	-	-	_	_
50,000 to 99,999 lb	-	_	_	_	-	_	_
100,000 lb or more	-	-	=	-	-	_	_
Other multiple modes	-	-	-	-	-	-	-
Less than 50 lb	_	_	_	_	_	_	_
50 to 99 lb	-	_	_	_	-	_	_
100 to 499 lb	-	_	_	_	_	_	_
500 to 749 lb	-	_	_	_	-	_	_
750 to 999 lb	-	_	_	_	_	_	_
1,000 to 9,999 lb	_	_	_	_	_	_	_
10,000 to 49,999 lb	_	_	_	_	_	_	_
50,000 to 99,999 lb	_	_	_	_	_	_	_
100,000 lb or more	-	_	-	_	-	_	_
Other and unknown modes	22.2	-	35.8	-	49.4	-	28.3
Less than 50 lb	16.6	6.2	25.5	2.2	48.7	.6	36.7
50 to 99 lb	23.5	1.5	21.0	1.3	47.1	.2	S
100 to 499 lb	23.5	2.9	29.6	4.1	36.3	3.0	35.8
500 to 749 lb	48.1	_	36.6	_	S	S	S
750 to 999 lb	S	S	S	S	Š	Š	Š
1.000 to 9.999 lb	37.0	4.3	37.2	6.9	47.8	11.2	28.4
10,000 to 49,999 lb	48.1	3.7	57.2 S	0.3 S	48.7	9.7	5 S
50,000 to 99,999 lb	S	S.7	S	S	5 S	3.7 S	31.6
100.000 lb or more	30.6	14.1	38.0	17.4	Š	Š	S S
	1 00.0		00.0				

Represents data cell equal to zero or less than 1 unit of measure.
 D Denotes figures withheld to avoid disclosing data for individual companies.
 S Data do not meet publication standards because of high sampling variability or other reasons.

Table B-5. Measures of Reliability for Shipment Characteristics by Two-Digit Commodity for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

		Value		То	Tons		Ton-miles		
SCTG code	Commodity description	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Average miles per shipment— coefficient of variation	
	All commodities	11.1	_	16.1	-	37.9	-	12.5	
01 02 03 04 05	Live animals and live fish Cereal grains Other agricultural products Animal feed and products of animal origin, n.e.c. Meat, fish, seafood, and their preparations	- 37.1 S 31.6	- .3 S 3.5	44.5 S 37.6	- - - S .6	- 36.3 S 34.3	- .4 S 4.4	- 24.5 S 24.8	
06 07 08 09 10	Milled grain products and preparations, and bakery products Other prepared foodstuffs and fats and oils Alcoholic beverages Tobacco products Monumental or building stone	S 19.4 24.1 46.9 S	\$ 3.5.1.\$	\$ 34.1 19.0 \$ \$	\$.2 .2 \$ \$	\$ 39.6 29.0 \$ \$	\$ 3 3 \$ \$	31.4 42.3 15.6 S 25.8	
11 12 13 14 15	Natural sands Gravel and crushed stone Nonmetallic minerals n.e.c. Metallic ores and concentrates Coal	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9999	\$ \$ \$ 5	\$ \$ \$ \$ \$ \$ \$	8888 88	\$ \$ \$ -	31.6 27.8 32.5 29.6	
17 18 19 20 21	Gasoline and aviation turbine fuel. Fuel oils. Coal and petroleum products, n.e.c. Basic chemicals. Pharmaceutical products	13.2 25.3 36.6 S	3.5 2.9 .5 S	17.1 28.1 S S S	6.2 4.9 S S	\$ \$ \$ 41.3 \$	\$ \$ \$ \$	33.2 9.8 S 22.1 30.6	
22 23 24 25 26	Fertilizers Chemical products and preparations, n.e.c. Plastics and rubber Logs and other wood in the rough Wood products	\$ 25.5 35.2 \$ 32.3	\$ 2 .6 \$ 4	\$ 28.6 33.3 \$ 43.1	S - - S 1.1	\$ 43.5 \$ \$ 46.0	S .1 S S 2.3	25.6 37.5 21.7 S 18.2	
27 28 29 30 31	Pulp, newsprint, paper, and paperboard Paper or paperboard articles Printed products Textiles, leather, and articles of textiles or leather Nonmetallic mineral products	\$ 29.9 20.1 37.0 44.9	S .1 .8 .1 .4	\$ 45.9 35.5 30.6 \$	S - .3 - S	\$ 48.0 34.4 27.3 26.7	S - .2 - .6	31.3 S 27.5 25.4 47.2	
32 33 34 35	Base metal in primary or semifinished forms and in finished basic shapes. Articles of base metal. Machinery. Electronic and other electrical equipment and components and office equipment.	25.2 13.0 20.4 27.2	.3 .4 .7	39.2 17.3 21.8 41.6	-	35.5 30.4 26.3 47.2	- .2 .3	24.8 22.6 19.3 40.6	
36	Motorized and other vehicles (including parts)	22.3	.5	26.2	_	34.7	.3	\$ S	
37 38 39	Transportation equipment, n.e.c. Precision instruments and apparatus Furniture, mattresses and mattress supports, lamps, lighting fittings, and	S S	s s	S S	s s	s s	S S	27.0 S	
40 41 43	rumiure, matiresses and mattress supports, tamps, lighting littings, and illuminated signs Miscellaneous manufactured products Waste and scrap Mixed freight	30.2 39.1 S	2.2 S	31.1 31.4 S	- - S	S 28.1 S	S .2 S	49.4 17.5 29.3	
	Commodity unknown.	47.7	_	43.2	=	49.6	_	S	

Represents data cell equal to zero or less than 1 unit of measure.
 D Denotes figures withheld to avoid disclosing data for individual companies.
 S Data do not meet publication standards because of high sampling variability or other reasons.

Table B-6. Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997

[For explanation of terms and meaning of appreviations and symbols, see introduct	Val	ue	То	ons	Ton-	miles	
SCTG code, description, and mode of transportation	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Average miles per shipment— coefficient of variation
ALL COMMODITIES							
Total	11.1	_	16.1	_	37.9	_	12.5
Single modes	11.1	2.7	15.7	4.3	40.7	6.1	13.3
Truck For-hire truck Private truck	15.3 42.1 9.2	4.6 3.9 4.4	21.2 46.4 16.4	7.8 4.6 5.9	31.7 46.9 17.8	8.1 5.1 3.4	15.4 26.1 13.7
Rail	41.2	3.2	41.2	5.6	41.2	14.1	25.8
Water Shallow draft	39.5 S	5.7 S	48.5 47.4	7.4 .5	S 46.4	S 2.3	20.5 25.0
Great Lakes Deep draft	37.8	5.0	49.3	7.3	s	s	14.5
Air (includes truck and air)	36.4 32.5	2.4 .9	42.9 33.6	2.4	36.1 S	.3 S	11.1 S
Multiple modes	29.1	1.8	41.3	.6	28.8	2.4	14.1
Parcel, U.S. Postal Service or courier	28.1 S 35.8	1.1 S .6	34.9 S 46.9	- S -	42.5 S 34.6	.2 S 2.3	14.2 30.3 16.5
Rail and water	- -		_ _		_ _		_ _
Other and unknown modes	22.2	1.8	35.8	4.2	49.4	5.6	28.3
SCTG 01, LIVE ANIMALS AND LIVE FISH							
Total	_	-	_	-	_	-	-
Single modes	-	-	-	-	_	-	-
Truck For-hire truck Private truck	- - -	- - -	- - -	- - -	_ _ _	_ _ _	_ _ _
Rail	_	_	_	_	_	_	_
Water Shallow draft	_	-	_	-	_	_	-
Great Lakes Deep draft	_ _		_ _	- -	_ _	_ _	_ _
Air (includes truck and air)	_ _	_	=		- S	- S	- S
Multiple modes	_	-	-	-	_	-	-
Parcel, U.S. Postal Service or courier			_		_		
Truck and water Rail and water	_ _						
Other multiple modes	_	_	_	_	=	-	_
Other and unknown modes	_	-	_	-	_	-	_
Total	_	_	_	_	_	_	_
Single modes	_	_	_	_	_	_	_
Truck For-hire truck Private truck	_ _				_ _		_ _
Rail		_	_	_	_		_
Water	_	_	_	_	_	_	_
Shallow draft Great Lakes Deep draft	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _
Air (includes truck and air)	_	_	_	_	_ S	_ S	_ S
Multiple modes	_	_	_	_	_	-	_
Parcel, U.S. Postal Service or courier	_	_	_	_	_	_	_
Truck and rail. Truck and water Rail and water	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _		_ _ _
Other multiple modes	_	_	_	_	_	_	_
Other and unknown modes	-	-	-	-	-	-	-

Table B-6. Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997—Con.

To explanation of terms and meaning of abbreviations and symbols, see introduc-	Val	110	То	ons	Ton	-miles	
	Vai	l I	10	1	1011	-mies	Average miles
SCTG code, description, and mode of transportation	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	per shipment— coefficient of variation
SCTG 03, OTHER AGRICULTURAL PRODUCTS							
Total	37.1	_	44.5	_	36.3	_	24.5
Single modes	39.6	7.6	47.6	7.6	36.6	10.1	27.2
Truck . For-hire truck . Private truck .	41.3 S 41.9	7.4 S 7.5	48.9 S S	7.5 S S	37.3 S S	8.9 S S	28.9 29.9 35.9
Rail	_	-	_	-	_	_	-
Water	s	s	s	S	s	S	31.6
Shallow draft Great Lakes Deep draft	_ _ S	_ _ S	_ _ S	_ _ S	_ _ S	- - S	31.6
Air (includes truck and air)	S -	S -	S -	S -	S	S	26.2 S
Multiple modes	s	s	s	s	s	s	27.9
Parcel, U.S. Postal Service or courier	s	S	S	S	S	S	29.9
Truck and rail	s s	s S	s S	S	S	s S	28.1
Rail and water			_		_ _	_	
Other and unknown modes	s	s	s	s	s	s	31.6
SCTG 04, ANIMAL FEED AND PRODUCTS OF ANIMAL ORIGIN, N.E.C.							
Total	s	s	s	s	s	s	s
Single modes	s	s	s	s	s	s	31.8
Truck For-hire truck Private truck	S S S	S S S	S S S	S S S	S S S	S S S	31.8 29.9 31.6
Rail	_	-	_	-	-	_	-
Water	_	_	_	_	_	_	-
Shallow draft Great Lakes Deep draft	_ _ _	- - -	- - -	- - -	- - -		_ _ _
Air (includes truck and air)					s	s	s
Multiple modes	_	-	-	-	-	_	-
Parcel, U.S. Postal Service or courier	_	_	_	_	_	_	
Truck and water Rail and water	_	_	_		_	<u> </u>	_
Other multiple modes	-	-	_	_	_	_	_
Other and unknown modes	s	s	s	s	s	s	31.6
SCTG 05, MEAT, FISH, SEAFOOD, AND THEIR PREPARATIONS							
Total	31.6	-	37.6	-	34.3	_	24.8
Single modes	33.5	7.3	37.2	5.0	41.6	7.8	25.4
Truck For-hire truck Private truck.	S S 38.8	S S 3.2	S S 48.0	S S 4.9	46.4 S S	4.3 S S	11.0 28.4 23.6
Rail	_	_	_	_	_	_	_
Water	32.1	7.4	30.7	10.1	S	S	14.1
Shallow draft Great Lakes Deep draft	S - 41.8	S - 8.9	S - 44.7	S - 12.5	S - S	- S	31.7 - 9.9
Air (includes truck and air)	28.9	1.7	31.1	.8 –	38.4 S	1.5 S	6.9 S
Multiple modes	41.7	4.5	s	s	32.8	6.7	25.6
Parcel, U.S. Postal Service or courier	s	S	S	S	s	S	24.4
Truck and rail Truck and water Rail and water	41.8	4.5	s	s	32.8	6.7	31.4
Rail and water Other multiple modes	_	_	_	_	_	_	
Other and unknown modes	41.3	5.1	39.4	3.1	47.9	2.1	s

Table B-6. Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997—Con.

[1 of explanation of terms and meaning of abbreviations and symbols, see introduc					T		T	
	Val	ue	10	ons	I on-	miles	Average miles	
SCTG code, description, and mode of transportation	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	per shipment— coefficient of variation	
SCTG 06, MILLED GRAIN PRODUCTS AND PREPARATIONS, AND BAKERY PRODUCTS								
Total	s	s	s	s	s	s	31.4	
Single modes	s	s	s	s	s	s	31.4	
Truck	s	S	S	S	s	S	31.4	
For-hire truck	S	S	S	S	S	S	31.4	
Rail	-	-	-	-	_	-	-	
Water Shallow draft	_	-	_ _	_	_ _ _	_	-	
Great Lakes Deep draft	=	=	- - -	=	- - -			
Air (includes truck and air)	=	=	_ _	=	- S	s	S	
Multiple modes	-	-	-	-	-	-	-	
Parcel, U.S. Postal Service or courier	-	_	_	-	_	_	_	
Truck and vater Rail and water	_ =	_	_		_	_		
Other multiple modes	_	=	=	_	_	_	_	
Other and unknown modes	-	_	_	_	_	_	_	
SCTG 07, OTHER PREPARED FOODSTUFFS AND FATS AND OILS								
Total	19.4	_	34.1	_	39.6	_	42.3	
Single modes	19.8	4.5	34.2	4.2	38.0	5.3	40.9	
Truck For-hire truck Private truck	20.1 S 20.4	4.5 S 10.2	34.2 S 34.3	4.2 S 10.5	39.0 S 39.3	5.3 S 9.7	35.1 31.6 33.4	
Rail	_	_	_	_	_	_	_	
Water Shallow draft Great Lakes	- - -	- - - -	- - - -	- - -	- - - -	_ _ _	- - -	
Deep draft Air (includes truck and air)	S	S	S	S	S	S	31.6 S	
Multiple modes	s	s	s	s	46.8	5.5	26.4	
Parcel, U.S. Postal Service or courier	s	s	s	s	s	s	28.3	
Truck and rail	_ S	- S	_ S	- S	_ S	_ S	30.0	
Rail and water	=	_	_ _	_	_ _	_		
Other and unknown modes	s	s	s	s	s	s	31.6	
SCTG 08, ALCOHOLIC BEVERAGES								
Total	24.1	_	19.0	_	29.0	_	15.6	
Single modes	23.0	3.7	19.6	3.6	23.0	6.7	10.4	
Truck For-hire truck Private truck	23.2 S 22.1	3.8 S 4.0	19.8 S 19.5	3.6 S 3.9	23.7 S 22.3	6.8 S 8.6	10.5 31.6 17.9	
Rail	-	_	_	_	_	_	_	
Water Shallow draft	_		_ _	-	_ _			
Great Lakes Deep draft		=			_ _			
Air (includes truck and air)	S -	S -	S -	S -	S S	S S	31.6 S	
Multiple modes	s	s	s	s	s	s	31.6	
Parcel, U.S. Postal Service or courier	_		_ _		_ _			
Truck and water	S -	S -	S -	S -	S -	S -	31.6	
Other multiple modes			_	-			_	
Other and unknown modes	s	s	s	S	s	s	s	

Table B-6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[1 of explanation of terms and meaning of abbreviations and symbols, see introduc-							
	Val	ue	То	ons	Ton-miles		Average miles
SCTG code, description, and mode of transportation	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Average miles per shipment— coefficient of variation
SCTG 09, TOBACCO PRODUCTS							
Total	46.9	_	s	s	s	s	s
Single modes	s	s	s	s	49.1	17.5	30.5
Truck	s	s	s	s	49.1	17.5	30.5
For-hire truck Private truck	s	s	s s	s s	49.1	17.5	30.5
Rail	_	_	_	_	_	_	_
Water	-	_	_	_	_	-	_
Shallow draft Great Lakes Deep draft		_ _ _	_ _ _	- - -	- - -	=	_ _ _
Air (includes truck and air)					_ S	_ S	_ S
Multiple modes	s	s	s	s	s	s	40.7
Parcel, U.S. Postal Service or courier	s	s	s	s	s	s	40.7
Truck and rail	_	_	_		_	_	_
Rail and water	_	_	_	_	-	_	_
Other multiple modes	_	_	-	_	_	_	-
Other and unknown modes	s	S	S	S	s	S	31.6
SCTG 10, MONUMENTAL OR BUILDING STONE							
Total	S	S	S	S	S	S	25.8
Single modes	S	S	S	S	S	S	25.8
Truck For-hire truck Private truck.	S - S	S - S	S - S	\$ - \$	\$ - \$	S - S	25.8 - 25.8
Rail	_	-	-	-	_	_	_
Water	_	_	_	_	_	_	_
Shallow draft Great Lakes Deep draft	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _		_ _ _
Air (includes truck and air)		_		_	_ S	_ S	_ S
Multiple modes	_	_	_	_	_	_	_
Parcel, U.S. Postal Service or courier	_		_		_	_	_
Truck and water Rail and water	_	_	_	_	_	_	_
Other multiple modes	-	_	-		_	-	_
Other and unknown modes	_	-	_	-	_	-	_
SCTG 11, NATURAL SANDS							
Total	s	s	s	s	s	s	31.6
Single modes	s	s	s	s	s	s	31.6
Truck For-hire truck Private truck	S S -	S S -	S S -	S S -	S S -	S S -	31.6 31.6 —
Rail	_	_	_	_	_	_	_
Water	_	_	_	_	_	_	_
Shallow draft Great Lakes Deep draft	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	_ 	_ _ _
Air (includes truck and air)	_	_	_		_ S	_ S	_ S
Multiple modes	_	_	_	_	_	-	-
Parcel, U.S. Postal Service or courier	_	_	_	_	_	_	_
Truck and rail] =	_	_	_] =	<u> </u>	Ξ
Truck and water] =	-	_		_	_	_
Other multiple modes	_	_	_	_	_	_	_
Other and unknown modes	I –	I –	· –		I –	I –	I –

Table B-6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[1 of explanation of terms and meaning of abbreviations and symbols, see introduc-							1
	Val	ue	To	ons	Ton-	miles	
SCTG code, description, and mode of transportation	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Average miles per shipment— coefficient of variation
SCTG 12, GRAVEL AND CRUSHED STONE							
Total	s	s	s	s	s	s	27.8
Single modes	s	s	s	s	s	s	27.9
Truck	s	S	S	S	s	S	27.9
For-hire truck Private truck	S S	S S	S S	S S S	S S	S S	31.6 26.0
Rail	_	-	-	-	-	-	-
Water	_	_	_	_	-	_	_
Shallow draft	_				_	_	_
Deep draft	-	-	_	_	_	-	_
Air (includes truck and air)					_ S	_ S	_ S
Multiple modes	_	_	_	_	_	_	_
Parcel, U.S. Postal Service or courier	_	_	_	_	_	_	_
Truck and rail	_	_	_	_	_	_	_
Truck and water] =					_	_
Other multiple modes	_	_	_	_	-	_	_
Other and unknown modes	s	s	s	s	s	s	31.6
SCTG 13, NONMETALLIC MINERALS N.E.C.							
Total	s	s	s	s	s	s	32.5
Single modes	s	s	s	s	s	s	32.5
Truck	s	S	S	S	s	S	32.5
Private truck	S	s	s	S	s	s	32.5
Rail	_	_	_	_	_	_	_
Water Shallow draft	-	_	_		-	_	_
Great Lakes Deep draft					_ _ _		
Air (includes truck and air)	_	_		_	S	S	S
Multiple modes	_	-	-	-	_	-	-
Parcel, U.S. Postal Service or courier	-	_	-	_	-	_	_
Truck and rail		_			_	_	
Rail and water	_	_	_	_	_	_	_
Other and unknown modes							
					_		
SCTG 14, METALLIC ORES AND CONCENTRATES							
Total	s	S	s	S	s	S	29.6
Single modes	S	S	S	S	S	S	31.3
Truck For-hire truck Private truck	S S -	S S -	S S -	S S -	S S -	S S -	31.6 31.6 -
Rail	_	-	-	-	-	-	-
Water	s	S	s	S	s	S	31.6
Shallow draft]	_	_	_	<u> </u>	_	_
Deep draft	s	s	s	s	s	s	31.6
Air (includes truck and air)	S -	S -	S -	S -	S S	S S	31.6 S
Multiple modes	_	_	_	-	_	_	_
Parcel, U.S. Postal Service or courier	-	_	_	_	_	_	_
Truck and rail] =	-	_		_	_	_
Rail and water	_	-	-		_ _		
Other and unknown modes	s	s	s	s	s	s	30.4
Caron and unknown modes	. 3	. 3			. 3	. 3	30.4

Table B-6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

	Val	ue	To	ons	Ton-miles			
SCTG code, description, and mode of transportation	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Average miles per shipment— coefficient of variation	
SCTG 15, COAL								
Total	_	_	_	_	_	_	_	
Single modes	_	_	_	_	_	_	_	
Truck	_	-	-	_	-	_	_	
For-hire truck Private truck		_	=	=	=	_	_	
Rail	_	_	_	_	_	_	_	
Water Shallow draft Caret Lake	_ _ _	_	- - -	_	_	_		
Great Lakes Deep draft	=	-	_		_			
Air (includes truck and air).	_				- S	- S	- S	
Multiple modes	_	-	_	-	_	-	-	
Parcel, U.S. Postal Service or courier			_ _		_ _			
Truck and water Rail and water			_		_	_	-	
Other multiple modes	-	_	_	_	_	_	_	
Other and unknown modes	_	-	_	_	_	_	-	
SCTG 17, GASOLINE AND AVIATION TURBINE FUEL								
Total	13.2	_	17.1	_	S	S	33.2	
Single modes	13.6	.9	17.5	1.0	S	S	35.9	
Truck For-hire truck Private truck	18.7 S 20.9	11.1 S 10.0	20.3 S 21.0	11.0 S 8.8	S S 24.5	S S 16.0	19.1 30.0 28.2	
Rail	43.6	8.8	42.1	8.9	42.2	16.5	25.8	
Water	s	S	s	S	s	s	31.6	
Shallow draft Great Lakes Deep draft	- - S	- S	- - S	- S	- - S	- - S	31.6	
Air (includes truck and air)	S 45.7	S 2.9	S 46.2	S 4.9	S S	S	31.6 S	
Multiple modes	s	s	s	s	s	s	29.8	
Parcel, U.S. Postal Service or courier	_ S	- S	_ S	_ S	_ S	_ S	29.8	
Truck and water Rail and water			_ _ _		_ _ _			
Other multiple modes	-	_	_	_	_	_	_	
Other and unknown modes	s	S	s	S	s	S	28.4	
SCTG 18, FUEL OILS					_			
Total	25.3 25.5	.7	28.1 28.3	.7	s	s	9.8	
Truck	18.5	10.7	20.8	12.0	s	s	11.9	
For-hire truck Private truck	S 22.4	S 8.1	S 24.1	S 8.8	S 36.7	S 15.1	28.3 13.5	
Rail	43.1	5.1	44.0	6.7	44.7	14.2	25.8	
Water Shallow draft	S -	S -	S	S	S	S	31.6	
Great Lakes Deep draft	s	S	- S	s	- S	- S	31.6	
Air (includes truck and air)	- S	- S	_ S	- S	_ S	_ S	- S	
Multiple modes	s	s	s	s	s	s	31.6	
Parcel, U.S. Postal Service or courier	- S	Š	- S	s	- S	- S	31.6	
Truck and water Rail and water Other multiple modes	_ _		_ _					
Other multiple modes	s	s	s	s	s	s	31.6	
Caron und diministri modes	. 3						31.0	

Table B-6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[1 of explanation of terms and meaning of abbreviations and symbols, see introduc-	lory text]						
	Val	ue	To	ons	Ton-	miles	
SCTG code, description, and mode of transportation	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Average miles per shipment— coefficient of variation
SCTG 19, COAL AND PETROLEUM PRODUCTS, N.E.C.							
Total	36.6	_	s	s	s	s	s
Single modes	36.8	10.1	s	s	s	s	s
Truck	36.8	12.3	s	s	s	s	S
For-hire truck Private truck	\$ 40.1	S 12.6	S	S S S	S	S	36.7 S
Rail	_	_	_	_	_	_	_
Water	_	_	_		_		
Great Lakes Deep draft		=	=		_ _		
Air (includes truck and air)	S -	S -	S -	S -	S S	S S	31.6 S
Multiple modes	_	-	_	-	_	-	_
Parcel, U.S. Postal Service or courier	-	_	-	_	_	_	_
Truck and rail] =	-	-	_	-	_	Ξ.
Rail and water	_	_	_ _		_ _	_	_
Other and unknown modes	s	s	s	s	s	s	26.4
SCTG 20, BASIC CHEMICALS							
Total	s	s	s	s	41.3	_	22.1
Single modes	s	s	s	s	41.4	10.1	s
Truck . For-hire truck . Private truck .	S S S	S S S	S S S	S S S	41.5 S S	13.2 S S	S 31.4 S
Rail	_	_	_	_	_	_	_
Water	_	_	-	_	_	_	_
Shallow draft Great Lakes Deep draft	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _
Air (includes truck and air)	S -	S -	S -	S -	S	S S	29.8 S
Multiple modes	s	s	s	s	s	s	43.9
Parcel, U.S. Postal Service or courier	s	s	s	s	s	s	43.9
Truck and rail Truck and water] =	_]	_	_
Rail and water] =	=	=	_	=	=	_
Other multiple modes	_	_	_	_	_	_	_
Other and unknown modes	s	S	s	S	s	S	29.9
SCTG 21, PHARMACEUTICAL PRODUCTS	_		_	_	_		
Total	s	s	s s	s	s	s	30.6 26.8
•	s	s		s	s	s	
Truck For-hire truck Private truck	S S	S S	S S S	\$ \$ \$	42.5 S	11.3 S	27.9 30.2 30.7
Rail	_	_	-	-	_	-	_
Water Shallow draft	-	-	-	_	-	_	_
Great Lakes Deep draft	_ _ _	=	= =		_ _ _		_ _ _
Air (includes truck and air)	S -	S -	S -	S -	S S	S S	31.6 S
Multiple modes	s	s	s	s	s	s	36.0
Parcel, U.S. Postal Service or courier	S -	S _	S _	S _	S -	S _	36.0
Truck and water Rail and water	-	-	-	_	-	_	_
Other multiple modes	_	<u> </u>	_		_	_	_
Other and unknown modes	s	s	s	s	s	s	31.8

Table B-6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[1 of explanation of terms and meaning of abbreviations and symbols, see introduc-							
	Val	ue	To	ons	Ton-	miles	
SCTG code, description, and mode of transportation	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Average miles per shipment — coefficient of variation
SCTG 22, FERTILIZERS							
Total	s	s	s	s	s	s	25.6
Single modes	s	s	s	s	s	s	25.7
Truck	s	S	s	S	s	S	23.9
For-hire truck Private truck	S S	S S	S S	S S S	S S	SS	26.4 28.3
Rail	_	_	-	-	_	_	_
Water Shallow draft	S	S -	S -	S -	S -	S -	31.6
Great Lakes Deep draft	_ S	_ S	_ S	_ S	_ S	_ S	_ 31.6
Air (includes truck and air)	_	_	_	_	_	_	_
Pipèline	_	_	_	_	S	S	S
Multiple modes	S	S	S	S	S	S	31.6
Parcel, U.S. Postal Service or courier	_		_			_	
Truck and water	S -	S -	S -	S -	S -	S -	31.6
Other multiple modes	-	_	_	_	_	_	_
Other and unknown modes	s	s	s	s	s	s	27.6
SCTG 23, CHEMICAL PRODUCTS AND PREPARATIONS, N.E.C.							
Total	25.5	-	28.6	-	43.5	_	37.5
Single modes	29.7	9.6	34.1	9.9	s	s	s
Truck For-hire truck Private truck	33.2 46.3 30.7	11.5 10.6 11.4	35.1 47.4 48.3	12.5 14.5 11.8	S S S	S S S	S 30.9 25.2
Rail	_	-	-	-	_	_	_
Water	_	_	_	-	_	_	_
Shallow draft Great Lakes Deep draft	_ _ _	_ _ _	- - -	_ _ _	- - -		_ _ _
Air (includes truck and air).	S -	S -	S -	S -	S S	S S	29.8 S
Multiple modes	s	s	s	s	s	s	28.2
Parcel, U.S. Postal Service or courier	s	S	s	s	S	S	28.0
Truck and rail Truck and water	s	s	S	s	S	S	31.6
Rail and water Other multiple modes	=	_	_		_	_	_
Other and unknown modes	s	s	s	s	s	s	s
SCTG 24, PLASTICS AND RUBBER							
Total	35.2	_	33.3	-	s	s	21.7
Single modes	36.5	2.4	33.0	1.7	s	s	31.8
Truck For-hire truck Private truck	38.6 S 28.9	6.1 S 8.4	33.5 S 38.0	4.3 S 10.4	S S S	S S S	23.7 30.2 31.1
Rail	_	_	_	_	_	_	_
Water	s	S	s	S	s	S	29.8
Shallow draft Great Lakes	Š -	S -	S -	S -	S -	S -	31.6
Deep draft	S	S	S	S	S	S	31.6
Air (includes truck and air)	S -	S -	49.8	3.8	48.9 S	7.2 S	18.9 S
Multiple modes	25.2	2.1	s	s	45.9	5.2	18.7
Parcel, U.S. Postal Service or courier	37.1	2.0	43.1	.9	29.2	4.8	17.4
Truck and water Rail and water	39.0	1.2	S -	S -	S -	S -	26.4
Other multiple modes	_	_	_	-	_	_	-
Other and unknown modes	36.6	.8	s	s	s	s	s

Table B-6. Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997—Con.

[For expianation or terms and meaning or abbreviations and symbols, see introduct	Val	ue	To	ons	Ton-	miles	
SCTG code, description, and mode of transportation	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Average miles per shipment— coefficient of variation
SCTG 25, LOGS AND OTHER WOOD IN THE ROUGH							
Total	s	s	s	s	s	s	s
Single modes	s	s	s	s	s	s	28.5
Truck	S S S	\$ \$ \$	S S S	S S S	S S S	S S S	30.3 31.6 31.6
Rail	_	_	_	_	_	_	_
Water Shallow draft Great Lakes	s - -	S -	S - -	S - -	S - -	S - -	31.6 - -
Deep draft	s	S	S	S	S	S	31.6
Air (includes truck and air)		_	_ _		S	S	Š
Multiple modes	_	-	_	_	_	-	_
Parcel, U.S. Postal Service or courier	_ _ _		_ _		_ _		_ _
Truck and water Rail and water	_ _		_ _		_ _		_ _
Other multiple modes	s	s	s	s	s	s	31.6
SCTG 26, WOOD PRODUCTS							31.3
Total	32.3	_	43.1	_	46.0	_	18.2
Single modes	35.5	9.1	45.7	14.7	5 S	s	19.0
Truck For-hire truck	18.6 31.2	16.2 11.7	S	S	SSS	SSS	24.4 25.6
Private truck Rail	23.8	11.3	24.7	12.1	S -	S -	S -
Water	s	S	s	ş	s	s	25.9
Shallow draft Great Lakes Deep draft	S - -	S - -	S - -	S - -	S - -	S - -	25.9 — —
Air (includes truck and air)	s -	S -	S -	S -	S S	S S	28.2 S
Multiple modes	s	s	s	s	s	s	30.5
Parcel, U.S. Postal Service or courier	_		_				
Truck and water	S -	S -	S -	S -	S -	S -	30.5
Other multiple modes	_	_	_	_	_	_	-
Other and unknown modes SCTG 27, PULP, NEWSPRINT, PAPER, AND PAPERBOARD	s	S	s	S	S	S	29.9
Total	s	s	s	s	s	s	31.3
Single modes	45.0	8.4	42.3	9.2	s	s	31.1
Truck	45.0 S	8.4 S	42.3 S	9.2 S	S	S	31.1 30.0
Private truck Rail	45.5	8.0	43.0	8.8	S -	S -	S
Water	_	_	_	_	_		_
Shallow draft Great Lakes Deep draft	_ _ _		_ _ _ _	- - -	_ _ _	_ _ _	_ _ _
Air (includes truck and air)	_		_ _	_ _	_ S	_ S	_ S
Multiple modes	s	s	s	s	s	s	30.8
Parcel, U.S. Postal Service or courier	s	S -	s	s -	s -	S	30.8
Truck and water Rail and water	_ _ _				_ _ _		
Other multiple modes	s s	- S	- s	- s	- s	- s	31.6
Guier and unknown modes	, 5	, 5	, 5	, 5	, 5	, 5	31.0

Table B-6. Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997—Con.

[1 of explanation of terms and meaning of abbreviations and symbols, see introduc-							
	Val	ue	Tons		Ton-miles		
SCTG code, description, and mode of transportation	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Average miles per shipment— coefficient of variation
SCTG 28, PAPER OR PAPERBOARD ARTICLES							
Total	29.9	_	45.9	_	48.0	_	s
Single modes	31.3	4.0	47.7	1.9	46.4	14.8	s
Truck	31.8	5.0	48.0	2.3	43.0	17.4	44.5
For-hire truck Private truck	49.6 32.9	2.3 6.5	42.9 49.5	2.5 3.9	S 24.0	S 19.3	37.9 S
Rail	_	-	-	_	_	_	_
Water	_	_	_	_	_	_	_
Great Lakes Deep draft	_ _			_ _	_ _	_ _	_ _
Air (includes truck and air)	S -	S -	S -	S -	S	S	30.2 S
Multiple modes	48.4	3.7	s	s	s	s	46.3
Parcel, U.S. Postal Service or courier	48.4	3.7	S	s	s	S	46.3
Truck and rail Truck and water	-	-	-			_	-
Rail and water	_	_	_	_	_	_	_
Other multiple modes	-	_	_	-	-	_	_
Other and unknown modes	43.3	1.1	S	S	s	S	s
SCTG 29, PRINTED PRODUCTS							
Total	20.1	_	35.5	_	34.4	_	27.5
Single modes	23.1	5.2	37.6	7.8	39.5	17.3	S
Truck For-hire truck Private truck.	21.9 43.4 23.3	4.5 8.0 8.2	37.7 S 38.0	6.4 S 10.4	S S S	S S S	S S S
Rail	_	-	-	-	-	-	-
Water	_	_	_	_	_	_	_
Shallow draft Geat Lakes Deep draft	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _
Air (includes truck and air)	35.0	1.9	s	s	s	S	34.5
Pipeline	-	-	-	-	S	S	S
Multiple modes	41.2	2.7	S	S	S	S	12.0
Parcel, U.S. Postal Service or courier	41.2	2.7	S -	S -	S -	S -	12.0
Truck and water	_	_				_	_
Other multiple modes	-	_	_	-	_	-	-
Other and unknown modes	s	s	s	s	37.6	11.6	s
SCTG 30, TEXTILES, LEATHER, AND ARTICLES OF TEXTILES OR LEATHER							
Total	37.0	_	30.6	_	27.3	_	25.4
Single modes	s	s	38.4	8.4	s	s	s
Truck . For-hire truck . Private truck .	S S 48.3	S S 7.1	36.0 S 33.5	7.3 S 8.1	32.4 39.6 42.2		S 30.2 18.6
Rail	_	_	_	_	_	_	_
Water	_	_	_	_	_	_	_
Shallow draft Great Lakes Deep draft	_ _ _			_ _ _	_ _ _	_ _ _	_ _ _
Air (includes truck and air)	S -	S -	S -	S -	S S	S	30.2 S
Multiple modes	35.7	8.9	39.7	7.9	36.0	11.4	14.5
Parcel, U.S. Postal Service or courier	35.7	8.9	39.7	7.9	36.0	11.4	14.5
Truck and rail	_			_ _		_	
Rail and water				_ _		_	
Other and unknown modes	36.1	7.7	s	s	s	s	23.0

Table B-6. Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997—Con.

[For expianation or terms and meaning or appreviations and symbols, see introduct	Value		To	ons	Ton-miles		
SCTG code, description, and mode of transportation	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Average miles per shipment— coefficient of variation
SCTG 31, NONMETALLIC MINERAL PRODUCTS							
Total	44.9	_	s	s	26.7	_	47.2
Single modes	45.6	8.4	s	s	26.5	10.0	25.7
Truck For-hire truck Private truck	46.3 S S	8.3 S S	S S S	S S S	26.5 S 28.2	10.1 S 10.7	23.0 22.4 24.0
Rail	_	_	_	_	_	_	_
Water Shallow draft Shallow draft	s	S	S -	S	S	S	31.6
Great Lakes Deep draft	s	- S	- S	s	- S	- S	31.6
Air (includes truck and air)	S -	S -	S -	S -	S S	S S	27.9 S
Multiple modes	s	s	s	s	s	s	s
Parcel, U.S. Postal Service or courier	s	S	S -	S -	S -	S	S
Truck and water Rail and water	_			_	_	_	_
Other multiple modes	_	_	_	_	_	_	-
Other and unknown modes	37.2	8.4	s	s	s	s	s
SCTG 32, BASE METAL IN PRIMARY OR SEMIFINISHED FORMS AND IN FINISHED BASIC SHAPES							
Total	25.2	-	39.2	-	35.5	-	24.8
Single modes	25.7	4.0	34.9	5.5	36.5	4.3	15.1
Truck For-hire truck Private truck	26.0 35.9 28.7	4.2 5.2 5.9	35.3 37.7 40.2	5.6 8.2 8.0	39.5 39.7 S	6.3 12.5 S	16.1 21.5 27.4
Rail	-	-	-	-	-	-	_
Water	_				_	_	_
Great Lakes Deep draft	_ _		_ _		_ _		_ _
Air (includes truck and air)	S -	S -	S -	S -	S S	S S	24.9 S
Multiple modes	s	s	s	s	s	s	33.6
Parcel, U.S. Postal Service or courier	S	S	S	S -	S	S	33.5
Truck and water Rail and water	S	S	S	S	S	S	31.6
Other multiple modes	-	-	-	-	-	-	-
Other and unknown modes	49.5	4.0	S	S	s	S	39.6
SCTG 33, ARTICLES OF BASE METAL							
Total	13.0	2.5	17.3 17.7	1.2	30.4 29.6	-	22.6 38.0
Single modes	13.4 16.3	5.3	20.3	7.9	36.8	1.6 11.5	38.0 S
For-hire truck Private truck	24.7 19.8	7.2 7.0	35.0 20.2	11.1 9.7	42.7 33.8	14.2 11.5	19.1 S
Rail	_	_	_	-	-	_	_
WaterShallow draft			_ _		_ _		
Great Lakes	- -	_ _	_ _		- -	_ _	- -
Air (includes truck and air)	42.4	4.5 —	S -	S -	S S	S S	18.2 S
Multiple modes	33.4	1.9	43.5	.4	s	s	31.8
Parcel, U.S. Postal Service or courier	35.3	1.4	28.4	.3	34.4	1.5	30.6
Truck and water Rail and water Other multiple modes	S -	S - -	S - -	S -	S - -	S - -	S -
Other and unknown modes	31.4	2.0	23.4	1.1	41.1	.4	24.9

Table B-6. Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997—Con.

	Val	ue	To	ons	Ton-miles		A
SCTG code, description, and mode of transportation	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Average miles per shipment— coefficient of variation
SCTG 34, MACHINERY							
Total	20.4	_	21.8	_	26.3	_	19.3
Single modes	23.4	7.1	29.1	8.1	32.7	12.5	28.4
Truck	39.7	8.1	29.9	9.3	S	S	32.9
For-hire truck	S 25.4	S 5.8	43.9 25.7	5.9 8.3	S 41.4	S .9	31.1 23.2
Rail	_	_	_	_	-	_	_
Water	s	s	S S	S	S	S	32.9
Shallow draft	S -	S -	S - S	_	S -	S -	27.4
Deep draft	S	S		S	S	S	29.9
Air (includes truck and air)	34.8	8.2	S -	S -	47.6 S	11.4 S	17.0 S
Multiple modes	s	s	s	s	s	s	17.5
Parcel, U.S. Postal Service or courier	s	S	S	s	S	S	17.0
Truck and rail. Truck and water Rail and water	s S	S	S -	S	S	S	S
Other multiple modes	=	=	=	_	_	=	=
Other and unknown modes	29.3	4.1	22.9	6.1	s	s	41.0
SCTG 35, ELECTRONIC AND OTHER ELECTRICAL EQUIPMENT AND COMPONENTS AND OFFICE EQUIPMENT							
Total	27.2	-	41.6	-	47.2	-	40.6
Single modes	27.9	6.5	44.1	5.7	s	s	s
Truck For-hire truck	31.6 S	6.2 S	44.7 S	5.9 S	S	S S	28.9 S
Private truck	38.1	7.0	Š	Š	39.6	6.3	33.0
Rail	-	-	-	-	-	-	-
WaterShallow draft	S S	S S	S S	S S	S S	S S	31.6 31.6
Great Lakes	s	s	s	S	S	s	31.6
Air (includes truck and air)	49.0	3.8	34.6	1.6	48.2 S	9.0 S	20.1 S
Multiple modes	39.0	6.0	39.8	4.1	44.6	6.4	20.2
Parcel, U.S. Postal Service or courier	38.9	6.0	39.8	4.1	44.5	6.3	20.2
Truck and railTruck and water	- S	S	- S	S	S	S	31.6
Rail and water Other multiple modes	- -		-	_ _	-	_	_
Other and unknown modes	34.1	2.7	31.4	2.2	s	s	s
SCTG 36, MOTORIZED AND OTHER VEHICLES (INCLUDING PARTS)							
Total	22.3	_	26.2	_	34.7	_	s
Single modes	25.8	7.6	29.9	10.6	37.0	5.6	s
Truck For-hire truck Private truck	28.1 36.4 29.7	8.3 5.5 6.6	31.5 40.8 36.2	11.0 7.0 8.3	44.4 49.1 48.7	10.1 11.7 10.1	S 22.3 S
Rail	_	_	_	-	-	-	_
Water	S	S	S	S	S	S	30.3
Shallow draft Great Lakes Deep draft	S - S	S - S	S - S	S - S	S - S	S - S	30.0 — 31.6
Air (includes truck and air)	39.6	5.2	47.9	6.1	S	s	18.2
Pipeline	-	_	_	-	S	S	S
Multiple modes	s	S	S	S	S	S	25.0
Parcel, U.S. Postal Service or courier	S -	S -	49.1	1.1	S -	S -	23.7
Truck and water Rail and water Other multiple modes	S - -	S - -	S - -	S - -	S - -	S -	30.1
Outor manipo modes	_	_	_	_	_	_	

Table B-6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

To explanation of terms and meaning of abbreviations and symbols, see introduc-			_				
	Val	ue	Тс	ons	Ton-	miles	Average miles
SCTG code, description, and mode of transportation	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Average miles per shipment— coefficient of variation
SCTG 37, TRANSPORTATION EQUIPMENT, N.E.C.							
Total	s	s	s	s	s	s	27.0
Single modes	s	s	s	s	s	s	37.0
Truck	s	s	s	s	s	S	26.2
For-hire truck Private truck	S S	S S	S S	S S S	S S	SS	31.6 25.0
Rail	_	_	_	_	_	_	_
Water	_	_	_		_	_	_
Great Lakes Deep draft		_			_ _		
Air (includes truck and air)	S -	S -	S -	S -	S S	S S	27.7 S
Multiple modes	s	s	s	s	s	s	31.6
Parcel, U.S. Postal Service or courier	s	S	S	S	S	S	31.6
Truck and rail	=	_	_		_ _	_	_
Rail and water			_	_ _	_ _	_	_
Other and unknown modes	s	s	s	s	s	s	32.4
SCTG 38, PRECISION INSTRUMENTS AND APPARATUS							
Total	s	s	s	s	s	s	s
Single modes	s	s	s	s	s	s	s
Truck For-hire truck Private truck	S S S	S S S	S S S	S S S	S S S	S S S	S 33.8 S
Rail	_	_	_	_	_	_	_
Water	-	-	_	=	=	-	_
Shallow draft Great Lakes Deep draft	=	=	_ _ _	=	_ _ _	=	_ _ _
Air (includes truck and air)	S -	S -	S -	S -	S S	S S	31.4 S
Multiple modes	s	s	s	s	s	s	s
Parcel, U.S. Postal Service or courier	s	S	S	S	s	S	S
Truck and rail	_	_	_	_	_	_	
Rail and water	_	_	_	_	_	_	
Other and unknown modes	s	s	s	s	s	s	30.6
SCTG 39, FURNITURE, MATTRESSES AND MATTRESS SUPPORTS, LAMPS, LIGHTING FITTINGS, AND ILLUMINATED SIGNS							
Total	30.2	_	31.1	_	s	s	49.4
Single modes	31.6	9.8	34.1	12.0	s	s	s
Truck	33.0 S 42.3	12.8 S 14.8	41.4 S 45.8	14.7 S 15.9	S S S	S S S	\$ 31.7 \$
Rail	_	_	_	_	_	_	_
Water	-	_	_	_	_	_	_
Shallow draft Great Lakes Deep draft	_ _ _	=	- - -	=	- - -	- - -	_ _ _
Air (includes truck and air)	S -	S -	S -	S -	S S	S	29.9 S
Multiple modes	s	s	s	s	s	s	34.4
Parcel, U.S. Postal Service or courier	s	S	S	S	S	S	34.4
Truck and rail] =	_	_		_	<u>-</u>	_
Rail and water	_	_	_	 	_ _	_	
Other and unknown modes	s	s	s	s	s	s	30.7

Table B-6. **Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997**—Con.

[1 of explanation of terms and meaning of abbreviations and symbols, see introduc-	oddciory text]				т		
	Val	ue	To	ons	Ton-	miles	
SCTG code, description, and mode of transportation	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Average miles per shipment— coefficient of variation
SCTG 40, MISCELLANEOUS MANUFACTURED PRODUCTS							
Total	39.1	_	31.4	_	28.1	_	17.5
Single modes	49.8	14.2	35.3	8.0	33.7	10.4	23.9
Truck	40.1	10.8	35.9	8.9	40.6	8.4	31.4
For-hire truck Private truck	37.0 42.7	3.3 7.8	42.9 33.9	4.1 7.6	42.7 42.1	6.3 2.9	16.5 14.8
Rail	_	_	_	_	_	_	_
Water	_	_	_	_	_	_	_
Great Lakes	=	=			_ _	=	_ _
Air (includes truck and air).	S -	S -	34.5	2.4	41.4 S	10.1 S	35.0 S
Multiple modes	24.6	13.9	43.0	8.5	42.3	10.6	12.6
Parcel, U.S. Postal Service or courier	24.9	13.4	46.1	8.2	45.9	10.9	12.6
Truck and rail	_ s	- S	_ S	- S	_ S	- S	30.1
Rail and water	_	-	_	_	_	-	30.1
Other multiple modes	_	_	_	_	_	_	-
Other and unknown modes	37.6	1.6	s	S	s	s	41.0
SCTG 41, WASTE AND SCRAP							
Total	s	S	s	S	s	S	29.3
Single modes	s	s	s	s	s	s	29.8
Truck	S -	S -	S -	S -	S -	S -	29.8
Private truck	S	S	S S	s s	s s	S	29.8
Water	_	_	_	_	_	_	_
Shallow draft Great Lakes Deep draft	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _
Air (includes truck and air)	_	_	_	_	_	_	_
Pipeline	-	-	-	-	S	S	S
Multiple modes	s	S	s	S	s	S	26.1
Parcel, U.S. Postal Service or courier	S	S	S	S	S	S	31.6
Truck and water	S	S	S	S	S	S	28.0
Rail and water	_	-	-		_ _	_	_
Other and unknown modes	_	_	_	_	_	_	_
SCTG 43, MIXED FREIGHT							
Total	_	_	_	-	_	_	-
Single modes	-	-	_	-	_	-	-
Truck For-hire truck Private truck	_ _ _		_ _ _	_ _ _	_ _ _	_ _ _	_ _ _
Rail	_	_	_	_	_	_	_
Water	_	_	_	_	_	_	_
Shallow draft Great Lakes	_	_	_		_ _	_	_
Deep draft	_	_	_	_	_	_	_
Air (includes truck and air)			_ _		- S	s	- S
Multiple modes	_	_	_	-	_	-	-
Parcel, U.S. Postal Service or courier	-	_	_	_	_	_	_
Truck and rail] =		-			_	_
Rail and water Other multiple modes	_	_	-		_	_	
,							
Other and unknown modes	-	-	-	-	-	-	-

Table B-6. Measures of Reliability for Shipment Characteristics by Two-Digit Commodity and Mode of Transportation for State of Origin: 1997-Con.

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

	Val	ne	Tons		Ton-miles			
SCTG code, description, and mode of transportation	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Average miles per shipment— coefficient of variation	
COMMODITY UNKNOWN								
Total	47.7	-	43.2	-	49.6	-	s	
Single modes	43.7	9.1	44.4	10.3	s	s	s	
Truck	43.5 S S	9.1 S S	44.5 S 46.9	10.3 S 13.6	S S S	S S S	S 30.4 42.1	
Rail	_	-	-	-	_	-	-	
Water Shallow draft Great Lakes Deep draft	_ _ _ _	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	
Air (includes truck and air)	S -	S -	S -	S -	S S	S S	31.6 S	
Multiple modes	s	s	s	s	s	s	31.6	
Parcel, U.S. Postal Service or courier Truck and rail Truck and water Rail and water Other multiple modes	S - - - -	\$ - - -	S - - - -	\$ - - -	\$ - -	S - - - -	31.6 - - - -	
Other and unknown modes	s	s	s	s	s	s	31.6	

Represents data cell equal to zero or less than 1 unit of measure.
 D Denotes figures withheld to avoid disclosing data for individual companies.
 S Data do not meet publication standards because of high sampling variability or other reasons.

Table B-7. Measures of Reliability for Shipment Characteristics by State of Destination for State of Origin: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

· · · · · · · · · · · · · · · · · · ·							
	Val	ue	То	ns	Ton-miles		
State of destination	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
Total	11.1	-	16.1	_	37.9		
NEW ENGLAND STATES							
Connecticut Maine Massachusetts New Hampshire Rhode Island Vermont	000000	888888	<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	888888	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9999999	
MIDDLE ATLANTIC STATES							
New Jersey New York Pennsylvania	\$ 49.2 39.3	\$.2 -	S S 35.6	\$ \$ -	\$ \$ 37.2	S S -	
EAST NORTH CENTRAL STATES							
Illinois Indiana Michigan Ohio Wisconsin	46.6 S 46.1 29.2 S	- S - - S	46.6 49.9 S 30.2 S	- - - - - - - - - -	45.6 S S 37.0 S	- - - - - - - - - -	
WEST NORTH CENTRAL STATES							
lowa Kansas Minnesota Missouri Nebraska North Dakota South Dakota	000000 I	9999999	9999999	888888	8888888	999999	
SOUTH ATLANTIC STATES							
Delaware District of Columbia Florida Georgia Maryland North Carolina South Carolina Virginia West Virginia	0999999 90	999999 - 9 -	\$ 37.9 \$ \$ \$ - \$ -	\$\$ - \$ \$\$\$ - \$ - \$ - \$	\$ 36.4 \$ \$ \$ \$ -	88 888 8	
EAST SOUTH CENTRAL STATES							
Alabama Kentucky Mississippi Tennessee	\$ \$ \$ \$ \$ \$ \$	8888	\$ \$ \$ \$ \$ \$	8888	\$ \$ \$ \$ \$ \$ \$ \$ \$	S S S S S	
WEST SOUTH CENTRAL STATES							
Arkansas Louisiana Oklahoma Texas	\$ \$ \$ \$ \$ \$ \$	\$ \$ \$ \$	S S S 34.1	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	S S S 39.6	\$ \$ 5	
MOUNTAIN STATES							
Arizona . Colorado . Idaho . Montana . Nevada . New Mexico . Utah . Wyoming .	\$ 95 95 95 41.8 95 95 95	8888 888	00000000	99999999	888888888888888888888888888888888888888	89999999	
PACIFIC STATES							
Alaska California Hawaii Oregon Washington	13.2 S S S S 30.0	5.7 S S S 3.9	16.8 S S S	5.5 8 8 8	35.6 S S S S	15.7 S S S S	

Represents data cell equal to zero or less than 1 unit of measure.
 D Denotes figures withheld to avoid disclosing data for individual companies.
 S Data do not meet publication standards because of high sampling variability or other reasons.

Table B-8. Measures of Reliability for Inbound Shipment Characteristics by State of Origin for State of Destination: 1997

[For explanation of terms and meaning of abbreviations and symbols, see introductory text]

	Value		То	ons	Ton-miles		
State of origin	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	Coefficient of variation of number	Standard error of percentage	
Total	9.7	-	12.8	-	24.8	_	
NEW ENGLAND STATES							
Connecticut Maine Massachusetts New Hampshire Rhode Island Vermont	48.4 S 24.2 S S S	9.1.999	35.7 S 36.9 S S	- S - S S S	34.3 S 44.7 S S S	- 8 - 8 8 8	
MIDDLE ATLANTIC STATES							
New Jersey	39.3 S 22.5	.1 S .1	26.2 S 43.2	- S -	30.4 S 43.5	- S -	
EAST NORTH CENTRAL STATES							
Illinois Indiana Michigan Ohio Wisconsin	42.3 32.0 44.6 34.2 29.7	.3 .5 - .2 .2	26.4 38.1 34.5 S	- - - - - - - - - - - - - - - - - - -	25.7 44.7 29.9 S S	- .4 - S S	
WEST NORTH CENTRAL STATES							
lowa Kansas Minnesota Missouri Nebraska North Dakota South Dakota	39.3 30.7 33.0 39.6 S	- S 2 2 2 - S S	50.0 S 39.4 22.2 S S	- S S S S S	43.5 S S 29.7 S S 49.2	88 - 88 -	
SOUTH ATLANTIC STATES							
Delaware District of Columbia Florida Georgia Maryland North Carolina South Carolina Virginia West Virginia	\$ 46.7 20.5 44.3 28.3 39.8 28.6 \$	S - .1 - .2 - . S	\$ 43.8 27.4 \$ 34.4 41.3 44.7 48.7	\$ - - \$ - -	S - S 27.4 S 30.7 35.7 39.6 S	\$ \$ \$ - - \$	
EAST SOUTH CENTRAL STATES							
Alabama Kentucky Mississippi Tennessee	39.5 S S 29.0	- S S -	\$ \$ \$ 44.7	\$ \$ \$ \$ \$ =	S S S 39.5	\$ \$ \$ -	
WEST SOUTH CENTRAL STATES							
Arkansas Louisiana Oklahoma Texas	36.0 S 40.6 S	- S .2 S	\$ \$ 43.1 49.7	\$ \$ - -	\$ \$ 43.2 \$	S S .6 S	
MOUNTAIN STATES							
Arizona Colorado Idaho. Montana Nevada New Mexico Utah Wyoming	28.5 \$ 40.1 \$ 9 44.2 35.0 \$	S S S S S S S S S S	\$ 32.8 \$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	g 9999999	\$ 28.6 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Ø ØØØØØ	
PACIFIC STATES							
Alaska . California Hawaii . Oregon Washington .	13.2 20.7 S 40.4 26.8	4.4 1.5 S 3.7 3.3	16.8 43.4 S 40.1 47.6	6.0 .3 S .3 6.0	35.6 47.1 S 32.5 S	8.3 2.3 S 1.6 S	

Represents data cell equal to zero or less than 1 unit of measure.
 D Denotes figures withheld to avoid disclosing data for individual companies.
 S Data do not meet publication standards because of high sampling variability or other reasons.

Appendix C. Sample Design, Data Collection, and Estimation

INTRODUCTION

The primary goal for the 1997 Commodity Flow Survey (CFS) is to estimate shipping volumes (value, tons, and ton-miles) by commodity and mode of transportation at varying levels of geographic detail. A detailed description of the sample design for the 1997 CFS is provided below.

SAMPLE DESIGN

The sample for the 1997 CFS is selected using a stratified three-stage design in which the first-stage sampling units are establishments, the second-stage sampling units are groups of four 1-week periods (reporting weeks) within the survey year, and the third-stage sampling units are shipments.

First Stage

To create the first-stage sampling frame, we extracted a subset of establishment records from the 1995 Standard Statistical Establishment List (SSEL). The SSEL is a database, maintained by the Bureau of the Census, that contains a record for each establishment with employees. (An establishment is a single physical location where business transactions take place.) Establishments having nonzero payroll in 1994 and classified in the mining, manufacturing, wholesale, or selected retail industries, as defined by the 1987 Standard Industrial Classification (SIC) Manual, are included on the sampling frame. Auxiliary establishments (e.g. warehouses and central administrative offices) with shipping activity are also included. Auxiliary establishments are establishments that are primarily involved in rendering support services for other establishments within the same company, instead of for the public, government, or other business firms. All other establishments contained on the sampling frame are referred to as nonauxiliary establishments. For each establishment we extracted sales, payroll, number of employees, name and address information, as well as a primary identifier. We also computed a measure of size for each establishment. The measure of size for a particular establishment is designed to approximate the establishment's total value of shipments for 1994.

To reduce the amount of sampling variability and because estimates are desired for each commodity, we used a stratified design with a certainty component for each three-digit SIC. To accomplish this, each establishment on the sampling frame is classified into a three-digit

SIC grouping. For each group of establishments, a boundary (or cutoff) that divides the certainty establishments from the noncertainty establishments is determined using the Lavallee-Hidiroglou algorithm. If an establishment's measure of size is greater than the cutoff, the establishment is selected "with certainty". Establishments selected "with certainty" were assured of being selected and represented only themselves (i.e., have a selection probability of one and a sampling weight of one). No certainty cutoffs are set for auxiliary establishments because they only make up a small portion of the estimated total value of shipments for all establishments on the sampling frame.

Establishments not selected with certainty makeup the noncertainty universe. We stratify the noncertainty universe by SIC recode, National Transportation Analysis Region (NTAR), and a flag used to differentiate auxiliary establishments from nonauxiliary establishments. Each SIC recode is constructed from a group of related three-digit SIC codes. The NTARs, developed by the Department of Transportation as combinations of Bureau of Economic Analysis (BEA) Areas, collectively provide a mutually exclusive and exhaustive coverage of the United States. Finally, the auxiliary stratification came about because establishments with different types of operation may have different shipping practices. We refer to a particular SIC recode-NTAR-auxiliary flag combination as a primary stratum.

We further stratify the noncertainty establishments within each primary stratum using the measure of size previously described. We refer to these measure-of-size strata as substrata of the primary strata. The measure of size stratification increases the efficiency of the sample design. The Dalenius-Hodges cumulative rule is used to set the substratum boundaries. We then use Neyman allocation to determine the sample size required within each substratum to meet a coefficient of variation constraint on the primary stratum total measure of size. Within each substratum, a simple random sample of establishments is selected without replacement.

To arrive at the final sample size, we allocated additional establishments to some of the strata so that the probability of selecting any establishment is no less than 1 in 100. In total, the first-stage sample comprises 102,739 establishments.

Second Stage

The frame for the second stage of sampling consists of 52 one-week reporting periods (reporting weeks) during the interval from December 29, 1996, to December 26,

1997. Each establishment selected for the 1997 CFS was systematically assigned to report for a group of four reporting weeks throughout the survey year. The four reporting weeks in a given group are separated by 12 weeks. For example, an establishment might be requested to report data for the 5th, 18th, 31st, and 44th weeks of the survey year.

Third Stage

For each of the four reporting weeks in which an establishment is asked to report, we request the respondent to construct a sampling frame that consists of all shipments made by their establishment in each particular reporting week. For any particular reporting week, if an establishment makes 40 or fewer shipments during that week, we ask the respondent to provide information about all of their establishment's shipments from that week, i.e., no sampling is required. For establishments making more than 40 shipments in a given reporting week, we ask the respondent to select a systematic sample of these shipments and to provide us with information only about the selected shipments. The size of a particular respondent's sample for a given reporting week should be between 20 and 40 shipments, depending on the total number of shipments the establishment made during that reporting week.

DATA COLLECTION

Each establishment selected into the CFS sample is mailed a questionnaire for each of its four reporting weeks. For a given establishment, we request the respondent to provide the following information about their establishment's shipments: domestic destination or port of exit, commodity, value, weight, mode(s) of transportation, the date on which the shipment was made, and an indication of whether the shipment was an export, hazardous material, or containerized. For shipments that include more than one commodity, respondents are instructed to report the commodity that makes up the greatest percentage of the shipment's weight. For exports, we also ask the respondent to provide the mode of export and the foreign destination city and country.

We used two versions of the questionnaire to collect data from the sampled establishments—the CFS-1000 and the CFS-2000. Each establishment received the CFS-1000 in each of its first three reporting weeks. However, for the fourth reporting week, a subsample of approximately 25,000 establishments received the CFS-2000, while the remaining establishments received the CFS-1000. The CFS-2000 requests the respondent to provide additional information about their establishment's access to on-site and off-site shipping facilities, as well as transportation equipment. See Appendix E for a copy of each questionnaire.

ESTIMATION

Each shipment has associated with it a single tabulation weight, that is used in computing all estimates to which

the shipment contributes. The tabulation weight is a product of seven different weights. A description of each weight follows.

CFS respondents provide data for a sample of shipments made by their respective establishments in the survey year. For each establishment, we produce an estimate of that establishment's total value of shipments for the entire survey year. To do this, we use four different weights, the shipment weight, the shipment nonresponse weight, the quarter weight, and the quarter nonresponse weight.

Like establishments, we identify shipments as either certainty or noncertainty. (See the Nonsampling Error section in Appendix B for a description of how certainty shipments are identified.) For noncertainty shipments, the shipment weight is defined as the ratio of the total number of noncertainty shipments (as reported by the respondent) made by an establishment in a reporting week to the number of sampled noncertainty shipments for the same week. This weight uses the data from the sampled shipments to represent all the establishment's shipments made in the reporting week. However, some respondents fail to provide sufficient information about a sampled shipment. For example, a respondent may not be able to provide value, weight, or a destination ZIP Code for some of the sampled shipments. If these data items cannot be imputed, then these shipments would not contribute to tabulations and are deemed "unusable." (A usable shipment is one that has valid entries for value, weight, and origin and destination ZIP Codes.) To account for these "unusable" shipments, we apply the shipment nonresponse weight. For noncertainty shipments from a particular establishment's reporting week, this weight is equal to the ratio of the number of sampled shipments for the reporting week to the number of "usable" shipments for the same week. The shipment weight and shipment nonresponse weight for certainty shipments from a particular establishment's reporting week are both equal to one.

The quarter weight inflates an establishment's estimate for a particular reporting week to an estimate for the corresponding quarter. For noncertainty shipments, the quarter weight is equal to 13. The quarter weight for most certainty shipments is also equal to 13. However, if a respondent is able to provide information about all large (or certainty) shipments made in the quarter containing the reporting week, then the quarter weight for each of these shipments would be one. For each establishment, the quarterly estimates are added to produce an estimate of the establishment's value of shipments for the entire survey year. Whenever an establishment does not provide the Census Bureau with a response for each of its four reporting weeks, we compute a quarter nonresponse weight. The quarter nonresponse weight for a particular establishment is defined as the ratio of the number of

quarters for which the establishment was in business in the survey year to the total number of quarters (reporting weeks) for which we received usable shipment data from the establishment.

Using these four component weights, we compute an estimate of each establishment's value of shipments for the entire survey year. We then multiply this estimate by a weight that adjusts the estimate using value of shipments and sales data obtained from other Census Bureau surveys and preliminary results of the 1997 Economic Census. This weight, called the establishment-level adjustment weight, attempts to correct for any sampling or nonsampling errors that occur during the sampling of shipments by the respondent.

The adjusted value of shipments estimate for an establishment is then weighted by the establishment weight. This weight is equal to the inverse of the establishment's probability of being selected into the sample.

A final adjustment weight, called the SIC-level adjustment weight, uses preliminary results of the 1997 Economic Census to account for establishments from which we did not receive a response (including establishments from which we did not receive any usable shipment data) and for changes in the population of establishments between the time the first-stage sampling frame was constructed (1995) and the year in which the data were collected (1997). Separate SIC-level adjustment weights are determined for nonauxiliary and auxiliary establishments.

Appendix D. Standard Classification of Transported Goods Code Information

The commodities shown in this report are classified using the Standard Classification of Transported Goods (SCTG) coding system. The SCTG coding system was created jointly by agencies of the United States and Canadian governments based on the Harmonized System (HS) of product classification which is used worldwide. The purpose of the SCTG coding system was to specifically address statistical needs in regard to products transported.

In the past, Commodity Flow Survey (CFS) data have been collected and reported using product classifications found in the Standard Transportation Commodity Classification (STCC) system. These classifications were developed in the early 1960s by the American Association of Railroads (AAR) to analyze commodity movements by rail. The original purpose of the STCC was for identification of commodities for purposes of assigning rates for Interstate Commerce Commission (ICC) regulated rail carriers. The STCC continues to be used by the AAR as a tariff mechanism.

At the time that the Commodity Transportation Survey (CTS) (the CTS—the predecessor of the CFS) was first conducted in 1963, STCC codes were still useful for analyzing most important aspects of the U.S. transportation system. Since then, many changes have taken place that have gradually made the STCC code less useful for tracking domestic product movements across all modes (although

it remains perfectly functional for tracking rail-only movements). These include the deregulation of trucking, the enactment of North American Free Trade Agreement (NAFTA), changes in logistics practices, the emergence of plastics and composite materials to replace metals and glass, the obsolescence of many categories of wood products, and the very rapid recent development of high-tech electronic goods. Because the CFS is a shipper survey, the CFS collects information about shipments moving on all modes. As a consequence, STCC classifications frequently provide inadequate detail for identifying products that are significant for modes, such as truck and air. It is for these reasons that the Bureau of Transportation Statistics (BTS) has sponsored the development of a new product code to collect and report CFS data.

In 1997 the CFS provided respondents with a listing of SCTG codes and descriptions at the five-digit level to use in assigning a commodity code for each shipment. For shipments of more than one commodity, we instructed respondents to use the five-digit code for the major commodity, defined as the commodity of greatest total weight in the shipment.

Additional information on the SCTG system can be found on the Internet through the BTS web page at http://www.bts.gov. Comments or questions on the SCTG should be directed to http://cfs@bts.gov.

Appendix E. Sample Report Forms and Instructions

The sample report forms and instructions are shown on the following pages.

Note: The CFS-2000 was sent to a subsample of establishments to obtain additional information about the use of transportation equipment and facilities.

FORM **CFS-1000** (11-1-96)

Reporting period:

1997 COMMODITY FLOW SURVEY CENSUS OF TRANSPORTATION

U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS

Please return by:	
BUREAU OF THE CENSUS 1201 East 10th Street Jeffersonville IN 47132-0001	
<u> </u>	(Please correct any error in name, address, and ZIP Code)
BEFORE COMPLETING YOUR REPORT, please read the accompanying instruction guide. If book figures are not available for requested data, please provide estimates. If you have any questions, please call 1–800–772–7851.	Is this establishment's physical location the same as the address shown in the label? (PO boxes or rural routes are not physical locations.) 1 Yes
Through this survey, we are requesting data on a	² □ No — Enter physical location below. _▼
representative sample of your outbound shipments, to help us produce key statistics used by transportation planners	Number and street
and managers. We greatly appreciate your assistance in this program.	
	City, town, village, etc. State ZIP Code
Is the establishment name shown in the mailing address correct?	
₁	NOTE — The rest of this questionnaire requests information about shipments (or deliveries) from the establishment located at the address in the mailing label.
2 ☐ No — Enter correct name. ⊋	If you entered a different address in item C — Please complete the form for shipments originating from the location listed in item C.
	Please enter the total number of outbound shipments (or deliveries), including customer pick-up, for the one-week reporting period shown above. If book figures are not available, please provide your best estimate.
Mark (X) the ONE box which best describes this establishment during the one-week period shown above.	This number should reflect all shipments and deliveries leaving this location during the one-week reporting period. Please see Instruction Guide for a definition of
Temporarily or seasonally inactive Cased operation — Give date	DO NOT PROCEED UNTIL YOU HAVE
3 ☐ Ceased operation — Give date ——→	COMPLETED ITEM D.
that receive this questionnaire to answer the questions	Inited States Code, requires businesses and other organizations and return the report to the Census Bureau. By the same law, be seen only by Census Bureau employees and may be used respondents' files are immune from legal process.

Item E SAMPLING INSTRUCTIONS

Our goal in this section is to identify a sample of your shipments that you will provide data on. Through the use of a sample, we can avoid asking you for information on all of your shipments, while still obtaining statistically accurate information.

FINDING YOUR SELECTION RATE

If you reported 40 or fewer shipments in item D, please enter "1" as your selection rate in the box below, then go directly to item F and enter the information for each of your shipments.

If you reported 41 or more shipments in item D, we will now ask you to select and report on a sample of your shipments. Following the steps below will result in a sample of 20 to 40 shipments to report on in item F.

In the table at right, identify the selection rate that corresponds to the number you entered in item D, and enter it in the box below.

Please enter your	
selection rate>	

Number of shipments entered in item D	Selection rate
1— 40	1
41— 80	2
81— 100	3
101— 200	5
201— 400	10
401— 800	20
801— 1600	40
1601— 3200	80
3201— 6400	160
6401—12800	320
More than 12800	Call Census at 1–800–772–7851

CONTINUE ON NEXT PAGE. -

SHIPMENT CHARACTERISTICS Item F If a Shipment Shipment value hazardous Shipment date (excluding Commodity material, Shipment weight shipping costs) code from Commodity description enter the in pounds SCTG Manual Number in whole "UN" or (c) Line dollars "NA" Month number Da) (a) (b) (d) (e) (f) (h) (g) 123-5 4 26 4,235 140 3₁5₁1₂0 Electrical transformers 402H 125,300 00 4 26 626,500 1 | 2 | 0 | 3 Gasoline 1 2 3 4 5 6 7 8 Mode of transport codes Parcel delivery, courier, or U.S. 2 — Private truck 4 - Railroad for columns (k) and (n) Postal Service 3 - For-hire truck Continued

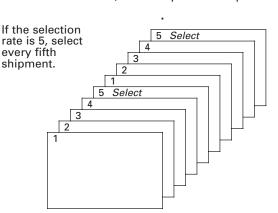
Page 2

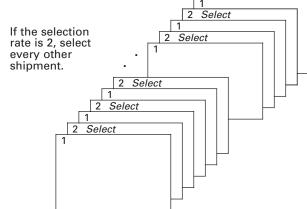
FORM CFS-1000 (11-1-96)

SELECTING YOUR SAMPLE OF SHIPMENTS

- 1. Use the file or combination of files that best reflects your full range of outbound shipping activities.
- 2. Begin with the first shipment. Count the shipments until you reach your selection rate. Select this shipment to report on in item F.
- **3.** Continue counting with the next shipment. Count this shipment as 1 and continue until you reach the selection rate again. Select this shipment to report on in item F.
- **4.** Repeat step 3 until you reach the last shipment for the one-week period. If the last shipment is counted as the selection rate, select this shipment to report on in item F. If the last shipment is not counted as the selection rate, do not report this shipment.

In the following examples, each rectangle represents one shipment.





Once you have selected your sample of shipments, please proceed to item F and enter the requested information for each selected shipment. Examples of completed lines for two shipments are provided on lines "0" and "00" below.

If you have difficulties constructing a file of shipments or have questions about how to select the sample of your shipments, please call our toll-free number for assistance: 1–800–772–7851.

<u> </u>										Γ		_	_
Containerized? (Y/N)		U.S. destination (Complete for all shipments.)		Mode(s) of transport to U.S. destination Enter all that apply in order used. Use	Export? (Y/N)	Foreign destination (for export shipments only) Note: In column (j) enter the U.S. port, airport, or border crossing of exit. (m)			Line No.				
(i)	City	State	State ZIP Code		codes below. (k)	Ш (I)	City	Country	© Export mode	(0)			
N	Los Angeles	$C_{\mid}A$	9	0) [$0_{\parallel}4_{\parallel}$	0	2, 4, 3	N				0
N	New York	N Y	1	լ0) 4	$\mathbf{l}_{\parallel}5_{\parallel}$	4	5	Y	London	England	6	00
													1
				ı	1	1 1							2
				ı	ı	1 1							3
				1		1 1							4
						1 1							5
													6
						1 1							7
													8
													9
\bigcup	5 — Shallow draft vessel 6 — Deep draft vessel			7 — 8 —		ipelir ir	ie	9 — (0 — (1	1	ر ا

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PLEASE CONTINUE ON PAGE 4.

Page :

lte	m F SHIP	MEN	т сн	ARACTERISTICS — Con	tinued			
Eine No.	Shipment ID Number	ID shipping costs)		Shipment weight in pounds	Commodity code from SCTG Manual	Commodity description	If a hazardous material, enter the "UN" or "NA" number	
(a)	(d)			(d)	(e)	(f)	(g)	(h)
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34	Mode of tra	nenor	t cod	ae 1 — Parcel	delivery, courier, or U.S.	2 — Priv	rate truck 4 — Railro	ad
	for columns	. (k) ai	nd (n)		Service	3 — For-	-hire truck Continued	

Page 4

FORM CFS-1000 (11-1-96)

)	U.S. destination (Complete for all shipments.) (j)		ts.)	transport to U.S. destination Enter all that apply in order	Export? (Y/N)	(for export ship Note: In column (j) airport, or border cr	eign destination ort shipments only) umn (j) enter the U.S. port, order crossing of exit. (m)		
+	City	State	ZIP Code	apply in order used. Use codes below. (k)	⊜ Exp	City	Country	Export mode	(0
				(K)	(1)			(11)	Т
_									1
									ļ.
\perp									ŀ
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FORM CFS-1000 (11-1-96)

PLEASE CONTINUE ON PAGE 6.

Page 5

lte	m F SHII	PMEN	т сн	ARACTERISTICS — Con	tinued					
Line No.	Shipment ID Number		ment ate c)	Shipment value (excluding shipping costs) in whole dollars	Shipment weight in pounds	Ş	Commodity code from SCTG Manual	Commodity description		If a hazardous material, enter the "UN" or "NA" number
(a)	(b)	Σ	ă	(d)	(e)	\dashv	(f)	(9	g)	(h)
35										
36							1 1 1 1			
37							1 1 1			
38										
39										
40										
Mc	L de of trans columns (k	port c	odes	1 — Parcel o	L delivery, courier, or U.S Service	S.		Private truck For-hire truck	4 — Railroad <i>Continued</i> —	
	2 . /	Are the room to separate of se	nents of this es	ords for outbound ships ords for outbound ships ocation maintained in a efiles (e.g., separate file nodity, or for each ships location?	ments number s for ping	ltem	one-wee should re establish An estim Total val	e total value of ship k reporting period. epresent all product ment for the one-vate is acceptable. ue in whole dollars to three months did individual shipment of the ser \$2,000,000?	This figure cts leaving this week period.	
	3. \	Noul	d it be ionna ient s es	em G1 or item G2: e easier to receive a sepire for each file or each ite?			□No			
Ite	m J CER	TIFIC	ATIOI	N						
Na	me of perso	on to c	ontac	t regarding this report – <i>Pl</i> o	ease print	Telep	hone number	– Include area code	Date	
Sig	nature				-	Title				
/										,

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Containerized? (Y/N)	U.S. destina (Complete for all s (j)	tion shipmen	ts.)	Mode(s) of transport to U.S. destination Enter all that apply in order used. Use	Export? (Y/N)	Foreign destination (for export shipments only) Note: In column (j) enter the U.S. port, airport, or border crossing of exit.			Line No.
(i)	City	State	ZIP Code	codes below.	(I)	City	Country	© Export mode	(0)
									35
									36
									T
									37
									38
									39
	5 — Shallow draft vessel		7 — Pipeli	ino 9	Otho	r mode			40
- - - -									
_									
		THA	ANK YOU FC	R COMPLETII	NG Y	OUR REPORT			

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FORM (6-9-97) CFS-2000

Reporting period:

1997 COMMODITY FLOW SURVEY CENSUS OF TRANSPORTATION

U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS

Please return by:								
RETURN TO BUREAU OF THE CENSUS 1201 East 10th Street Jeffersonville IN 47132-0001			0	lease correct	any error in name,	address and	l ZIP Coo	de)
BEFORE COMPLETING YOUR REPORT, paccompanying instruction guide. If book figure available for requested data, please provide have any questions, please call 1–800–772–7	ures are estimat 7851.	not	ie	Item C Is as rul	this establishmen the address show ral routes are not - Enter physical lo	nt's physica vn in the la physical lo	l location bel? (PC cations	on the same O boxes or
representative sample of your outbound shi us produce key statistics used by transporta and managers. We greatly appreciate your a program. Item A Is the establishment name shown in	pments tion pla assistan	nners		Number an	nd street , village, etc.		State	ZIP Code
mailing address correct? 1 Yes 2 No — Enter correct name.				shipments address in If you enter	he rest of this que: (or deliveries) fron the mailing label. red a different addi ipments originatin	n the establi ress in item	shment C — <i>Ple</i>	ease complete the
				io) on	ease enter the tota r deliveries), include e-week reporting p e not available, ple	ling customo	er pick-u n above	up, for the e. If book figures
Mark (X) the ONE box which best de establishment during the one-week pabove. 1 In operation 2 Temporarily or seasonally inactive			Year			shipments this location reporting	and de on durin period. In Guide	uld reflect all eliveries leaving ng the one-week Please see for a definition of
3 ☐ Ceased operation — Give date →		,		£	DO NOT PROCE COMPL	EED UNTIL		HAVE
YOUR RESPONSE IS REQUIRED B that receive this questionnaire to ans YOUR CENSUS REPORT IS CONFI only for statistical purposes. Further,	wer the o	questi \L. It r	ons and	return the re	eport to the Census Census Bureau em	s Bureau. By iployees and	the san I may be	ne law,

Item E SAMPLING INSTRUCTIONS

Our goal in this section is to identify a sample of your shipments that you will provide data on. Through the use of a sample, we can avoid asking you for information on all of your shipments, while still obtaining statistically accurate information.

FINDING YOUR SELECTION RATE

If you reported 40 or fewer shipments in item D, please enter "1" as your selection rate in the box below, then go directly to item F and enter the information for each of your shipments.

If you reported 41 or more shipments in item D, we will now ask you to select and report on a sample of your shipments. Following the steps below will result in a sample of 20 to 40 shipments to report on in item F.

In the table at right, identify the selection rate that corresponds to the number you entered in item D, and enter it in the box below.

Please enter your	
selection rate	

Number of shipments entered in item D	Selection rate
1— 40	1
41— 80	2
81— 100	3
101— 200	5
201— 400	10
401— 800	20
801— 1600	40
1601— 3200	80
3201— 6400	160
6401—12800	320
More than 12800	Call Census at 1–800–772–7851

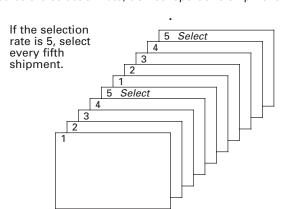
CONTINUE ON NEXT PAGE. –

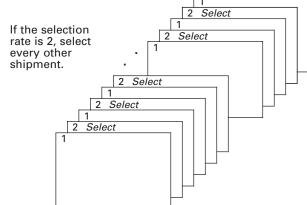
Iten	n F SHIPN	IENT	СНА	RACTERISTICS				
Line No.	Shipment ID Number	r (c) (excludin shipping co in whole dollars		Shipment value (excluding shipping costs) in whole dollars	ng Shipment weight on pounds in pounds		Commodity description	If a hazardous material, enter the "UN" or "NA" number
(a)	(b)			(d)	(e)	(f)	(g)	(h)
0	123-5	4	26	4,235	140	3 5 1 2 0	Electrical transformers	
00	402H	4	26	125,300	626,500	1,7,1,0,0	Gasoline	1,2,0,3
1								
2								
3								
4								
5								+
6						1 1 1		
7								
8								
9								
	Mode of tra for columns	nspor (k) aı	t code nd (n)	es 1 — Parcel de Postal S	elivery, courier, or U.S. ervice		I vate truck 4 — Railroad -hire truck Continued ——	

SELECTING YOUR SAMPLE OF SHIPMENTS

- 1. Use the file or combination of files that best reflects your full range of outbound shipping activities.
- 2. Begin with the first shipment. Count the shipments until you reach your selection rate. Select this shipment to report on in item F.
- **3.** Continue counting with the next shipment. Count this shipment as 1 and continue until you reach the selection rate again. Select this shipment to report on in item F.
- **4.** Repeat step 3 until you reach the last shipment for the one-week period. If the last shipment is counted as the selection rate, select this shipment to report on in item F. If the last shipment is not counted as the selection rate, do not report this shipment.

In the following examples, each rectangle represents one shipment.





Once you have selected your sample of shipments, please proceed to item F and enter the requested information for each selected shipment. Examples of completed lines for two shipments are provided on lines "0" and "00" below.

If you have difficulties constructing a file of shipments or have questions about how to select the sample of your shipments, please call our toll-free number for assistance: 1–800–772–7851.

© Containerized?	U.S. destination (Complete for all shipments.) (j) City State Mode(s) of transport to U.S. destination Enter all that apply in order used. Use codes below. (k) (k)		(Complete for all shipments.)			Foreign destination (for export shipments only) Note: In column (j) enter the U.S. port, airport, or border crossing of exit. (m) City Country		© Export mode	© Line No.				
N	Los Angeles	$C_{\mid}A$	9	0) [$0_{\parallel}4_{\parallel}$	0	2, 4, 3	N				0
N	New York	N Y	1	_0)	$\mathbf{l}_{\parallel}5_{\parallel}$	4	5	Y	London	England	6	00
		ı											1
				ı									2
				1		1 1							3
				ı	ı	1 1							4
				1	1	1 1							5
				1	1	1 1							6
						1 1							7
													8
						1 1							9
\Box	5 — Shallow draft vessel 6 — Deep draft vessel	1 1		7 – 8 –		ipelin Vir	ie	9 — C 0 — L			1		

FORM CFS-2000 (6-9-97)

PLEASE CONTINUE ON PAGE 4.

Page 3

Line No.	Shipment ID Number	(0	ite :)	Shipment value (excluding shipping costs) in whole dollars	Shipment weight in pounds	Commodity code from SCTG Manual	Commodity description	If a hazardous material, enter the "UN" or "NA"
一 (a)	(b)	Month	Day	(d)	(e)	(f)	(g)	number (h)
10								
11								\perp
12								
13								
14								
15								$\overline{}$
16								
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31								
32			\vdash					++++
33								+
34								
	Mode of tra	nspoi	t codes	1 — Parcel	delivery, courier, or U.S. Service	2 — Priv 3 — For-	rate truck 4 — Railroa -hire truck <i>Continued</i> -	d

E-12 APPENDIX E

(N/N)	U.S. destinat (Complete for all s	tion hipment	s.)	Mode(s) of transport to U.S. destination Enter all that apply in order	Export? (Y/N)	Foreign de (for export ship Note: In column (j) airport, or border c	stination oments only) enter the U.S. port, rossing of exit. m)	Export mode	Line No.
i)	City	State	ZIP Code	apply in order used. Use codes below. (k)	(i) Exp	City	Country		
1)				(K)	(1)			(n)	(0
									10
_									11
									12
									13
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			1 1 1 1						15
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									2
-									2
									2
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									29
			1 1 1 1						3
									3
									3:
									3
	5 — Shallow draft vessel		7 — Pipe	eline Q —	- Other	mode			3

FORM CFS-2000 (6-9-97)

PLEASE CONTINUE ON PAGE 6.

lte	m F SHIF	PMEN	IT CH	ARACTERISTICS —	Continued			\
Line No.	Shipment ID Number	ID shipping costs)		(excluding shipping costs) in whole	Shipment weight in pounds	Commodity code from SCTG Manual	Commodity description	If a hazardous material, enter the "UN" or "NA" number
(a)	(b)	Σ	۵	(d)	(e)	(f)	(g)	(h)
35								
36								
37								
38								
39								
	de of trans columns (k				cel delivery, courier, or U.S.			Railroad
Iter	repri the d	esent one-v Il valu	all p veek p ue in v	orting period. This figroducts leaving this period. An estimate whole dollars	establishment for	\$2,000,00 □ Yes □ No	idual shipments with a value	e over
In exi	column (b), che i te dı	ck "Y	es" or "No" for each 1997. For each "Ye		o indicate whetl	ner or not this type of facility olumn (c) to indicate whethe	/ er or
	Туре	e of s	hippi	ng facility	Was a shipping facili on your premises du		Did you use this facili premises for outbou during 1997?	
			(a)		(b)		(c)	
	1. Rail sid	ing			1 ☐ Yes —— 2 ☐ No	→	1 ☐ Yes 2 ☐ No	
	2. Dock or	n the	Great	t Lakes	1 ☐ Yes ── 2 ☐ No	→	1 ☐ Yes 2 ☐ No	
	3. Dock or	n inla	nd wa	ater	1 ☐ Yes —— 2 ☐ No	→	1 ☐ Yes 2 ☐ No	
	4. Dock or	n dee	p sea	water	1 ☐ Yes —— 2 ☐ No	→	1 ☐ Yes 2 ☐ No	
	5. Airport/ handlin	ʻlandi g you	ng st ır shi	rip capable of pments	1 ☐ Yes —— 2 ☐ No	→	1 ☐ Yes 2 ☐ No	
	6 Pineline	tern	ninal		1	→	1 ☐ Yes 2 ☐ No	

Page 6

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Containerized? (Y/N)		estination or all shipment	ts.)	trans U desti Enter apply	e(s) of port to l.S. nation all that in order d. Use	Export? (Y/N)	airport, or border c	oments only) enter the U.S. port,	Export mode	Line No.	
(i)	City	State	ZIP Code	codes	codes below.		City	Country		(0)	
(1)					(K)	(1)			(n)		
										35	
										36	
										37	
										38	
										20	
										39	
										40	
	5 — Shallow draft vesse6 — Deep draft vessel	el	7 — Pipel 8 — Air	ine		Othe Unkn	r mode own				
Item	J USE OF OFF-SITE	SHIPPING FA	CILITIES								
faci	olumn (b), check "Yes" o lity of that type for outb umn (c), and the mode of	ound shipme	nts during 19	97. Fo	or each "	Yes",	enter the miles to that	t off-site facility in			
Ту	Type of shipping facility Did you use this facility for outbo shipments during		utbound	off-site	Distance to the off-site facility of thi type that you used most in 1997 (Report in miles – estimates are acceptable)			to reach that faci	to reach that facility (Enter a code from the list below)		
	(a)		(b)				(c)	(d)			
1. F	ail siding	1 □ Y 2 □ N	′es → lo								
2. [ock on the Great Lakes	1 □ Y 2 □ N	′es → lo								
3. [Oock on inland water	1 □ Y 2 □ N	′es →								
4. 🗆	Oock on deep sea water	1 □ Y 2 □ N	′es →								
l c	Airport/landing strip apable of handling our shipments	1 □ Y 2 □ N	′es →								
1 ☐ Yes → 2 ☐ No 1 – Trailer on Flat Car (TOFC) 3 – For-Hire Tru 2 – Private Truck 4 – Rail											
			ıck			5 – Water 6 – Pipeline	7 – Air 8 – Other				
			PLEASE	CONT	INUE (ON P	AGE 8.				

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During 1997, did this location use any of the following types of equipment for outbound shipments? Please check "Yes" or "No." For rail cars reported in number 1 below, enter the approximate percentage of your total outbound rail shipments that used that type of rail car. These percentages should add to 100%. If you had no rail shipments, leave the percentages blank. Was this type of equipment Percentage of total Equipment used for outbound shipments rail shipments during 1993? (a) (b) (c) 1. Rail cars that: 1 ☐ Yes 2 No a. Your company owned/leased 1 ☐ Yes 2 No b. A common carrier owned/leased 1 ☐ Yes -2 ☐ No c. Another party owned/leased (e.g. receiver) 2. Trucks with 6 or more tires or 1 ☐ Yes truck-tractors that: 2 □ No a. Your company owned 1 ☐ Yes **b.** Your company leased, with driver 2 No 1 ☐ Yes 2 ☐ No c. Your company leased, without driver 1 ☐ Yes 2 □ No 3. Truck trailers that your company owned or leased 1 ☐ Yes 4. Aircraft that your company owned or leased 2 No 1 ☐ Yes 5. Barges that your company owned or leased 2 □ No 6. Other equipment that your company owned or leased – Specify ✓ 1 ☐ Yes 2 ☐ No Item L TRANSPORTATION DECISIONS During 1997, who generally decided on the mode of transportation for your outbound shipments? Check the appropriate box. 1 ☐ Your company 2 Receiver of shipment з 🗌 Other Remarks **CERTIFICATION** Item M Name of person to contact regarding this report - Please print Telephone number - Include area code Date

USE AND AVAILABILITY OF TRANSPORTATION EQUIPMENT

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Title

Signature

Item K

Instructions for Completing the Commodity Flow Survey

TIPS FOR COMPLETING THE CFS QUESTIONNAIRE

Please read all instructions.

You may use estimates if book figures are not readily available.

If you have questions about completing the survey, a Census Bureau representative will be glad to assist you. You can call us at 1-800-772-7851.

Some instructions are included on the questionnaire itself. However, due to space limitations, most of the instructions and definitions are included in separate reference materials. These include this instruction guide, and a listing of commodity codes to be used for classifying individual shipments in this survey.

PART I – GENERAL INFORMATION

Frequently Asked Questions About the Commodity Flow Survey (CFS)

Why are you conducting the CFS?

The CFS produces valuable measures of the demands on the nation's transportation system.

The results of the CFS are used by transportation policy makers to analyze future transportation needs.

Who reports in the CFS?

The CFS covers a sample of establishments in the mining, manufacturing, wholesale, and selected retail industries.

Why is my participation important?

Your establishment was selected as part of a sample designed to represent a wide range of industries and geographic regions.

Your report helps ensure quality results.

Is this survey mandatory?

Yes. The CFS is mandatory under the authority of Title 13, United States Code (USC).

Will my data be kept confidential?

Yes. The same law that requires your participation, Title 13, USC, also guarantees your data will be kept strictly confidential.

The reports you provide the Census Bureau cannot be used for purposes of taxation, regulation, or investigation.

Your report is used only to develop summary data that do not reveal the activities of individual firms or establishments.

How often must I report?

You will be sent four questionnaires in all: one during each quarter of 1997.

The CFS will not be conducted again until 2002.

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PART II – INSTRUCTIONS FOR COMPLETING YOUR QUESTIONNAIRE

Items A - C

Please enter the information requested on your establishment's name, operational status, and physical location.

Item D

Enter in the space provided your total number of outbound shipments for the one week reporting period on the front of the questionnaire.

Please include in this count any materials picked up by the customer ("customer pick-up").

What we mean by a "shipment":

For the purposes of this survey, a shipment is a single movement of goods, commodities, products, etc. from your location to a customer or to another location of your company.

"Commodities" refer to items that your location produces, sells, or distributes, *not* to items that are considered by-products of your location's operation.

What we don't mean by a "shipment":

Do *not* include as shipments items such as inter-office memos, payroll checks, business correspondence, etc.

Do *not* include as shipments items such as refuse, scrap paper, waste, and recyclable materials **unless** your location is in the business of selling or providing these materials to others.

A special note about "shipments":

A full, or partial, truckload should be counted as a single shipment only if all the commodities on the truck are destined for one location.

If a truck makes multiple deliveries on a route, please count each stop as one shipment.

Item E: Sampling Instructions

If you reported 40 or fewer shipments in Item D, complete Item F (Shipment Characteristics) for all of your shipments covered by the one-week reporting period.

If you reported more than 40 shipments in Item D, follow the instructions in Item E in order to select a sample of shipments on which to report in Item F.

By asking you to select a sample of your shipments for the one-week reporting period, we avoid asking you for information on all your shipments, while still obtaining statistically accurate information.

Reminder: The files you are sampling from should reflect the full range of your location's shipping activities in terms of modes of transportation used, commodities shipped, and destinations.

We're here to answer your questions! If you have questions about the sampling process (or any part of the questionnaire) please call us at 1-800-772-7851.

CFS-1100 (11-7-96)

PART II – INSTRUCTIONS FOR COMPLETING YOUR QUESTIONNAIRE – Continued

Item F: Shipment Characteristics

- Shipment ID Number (column b) Enter the invoice number, shipment number, or some other unique identification number that your establishment could use to find this particular shipping document if questions arise regarding your report.
- **Shipment Date (column c)** Enter the month and day of the shipment. If shipment date is not available, use the invoice/shipping document date. Use numbers only.
- Shipment Value (column d) Enter the dollar value, in whole dollars, of the entire shipment. The value should not include freight charges or excise taxes (i.e., report the net selling value, f.o.b. plant). If the value is not readily available from your records, please estimate.
- **Shipment Weight (column e)** Enter the weight of the total shipment in whole pounds. If weight is not readily available from your records, please estimate.
- Commodity Code (column f) Please use the list of Standard Classification of Transported Goods (SCTG) Codes in the enclosed SCTG Manual to select the proper code. For shipments with more than one commodity, enter only the code for the commodity with the greatest weight.
- **Commodity Description (column g)** Enter a brief description of the commodity shipped. For shipments with more than one commodity, describe only the commodity with the greatest weight. Do not use trade names, catalog numbers, or other codes not familiar to persons outside your business.

	×	1		×		\	
le No.	Shipment ID Number	da (c	ment ate	Shipment value (excluding shipping costs) in whole dollars	Shipment weight in pounds	Commodity code from SCTG Manual	Commodity description
(a)	(b)	Month	Dау	(d)	(e)	(f)	(g)
0	123-5	4	26	4,235	140	3 ₁ 6 ₁ 1 ₁ 2 ₁ 0	Electrical transformers
00	123-6	4	26	125,300	626,500	1,7,1,0,0	Gasoline
1							
2							
3							
4							
	Mode of tra	anspoi s (k) a	rt code	es 1 — Parcel deli	very, courier, or U.S.	2 — Private true	

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PART II – INSTRUCTIONS FOR COMPLETING YOUR QUESTIONNAIRE – Continued

Item F: Shipment Characteristics - Continued

- For Hazardous Materials (column h) If shipment is a hazardous material, enter the 4-digit United Nations or North American number.
- Containerized (column i) Indicate whether or not the shipment was containerized by entering "Y" or "N" (yes or no). Containerized means that the shipment left your establishment in an intermodal container or stackable tank without permanently attached wheels. These containers typically vary from 20 to 53 feet in length, and are carried on truck chassis, trains, and ships.
- U.S. Destination: City, State, and ZIP Code (column j) For domestic shipments, enter the city, state, and 5-digit ZIP Code of the buyer/receiver as it appears on the shipping document. Use the "ship to" address. Use the two letter state abbreviation shown in Part IV.

For **export shipments**, report the U.S. **port of exit** as the destination city. The port of exit is the port or airport from which the shipment left the country. In case of land shipments into Mexico or Canada, it is the border crossing.

● Mode(s) of Transport (column k) – Enter the code(s) for all modes of transport used for the shipment to its U.S. destination (i.e., the destination reported in column j). Codes are located on the bottom of pages 2, 3, 4, and 5 of the questionnaire. Enter in the sequence used, all that apply. See Part III for definitions of each mode.

For Customer Pick-up: Report the mode(s) of transportation used, if known. Otherwise, report mode as "0" (unknown).

For Export Shipments: List only the mode(s) of transport used to reach the port, airport, or border crossing of exit.

If a hazardous material, enter the "UN" or "NA"	Containerized? (Y/N)	U.S. destination	Mode(s) of transport to U.S. destination Enter all that apply using codes shown		
number (h)	(i)	City	State	ZIP Code	below. (k)
	N	Los Angeles	$C_{\mid}A$	9 0 0 4 0	2, 4, 3
	N	New York	N_1Y	1,0,4,5,4	5
			ı		

CFS-1100 (11-7-96)

PART II – INSTRUCTIONS FOR COMPLETING YOUR QUESTIONNAIRE – Continued

Item F: Shipment Characteristics - Continued

- Export Shipment (column I) Indicate whether or not the shipment is intended for export outside of the United States, by entering a "Y" or "N" (yes or no). For purposes of this survey, shipments to Puerto Rico and U.S. territories and possessions are considered exports.
 - Foreign Destination: City and Country (column m) If the shipment is an export, enter the foreign city and country of destination. For U.S. Destination (column j), enter the U.S. port, airport, or border crossing of exit. In column (k), enter the mode of transport used to the U.S. destination.
 - **Export Mode (column n)** If the shipment is an export, enter the code for the mode of transport by which the shipment left the country. Codes are located at the bottom of pages 2, 3, 4, and 5 of the questionnaire.

			▼	•	
•	Export? (Y/N)	Foreign de: (for export ship Note: In column (j) airport, or border cı (n	Export mode	Line No.	
	(1)	City	Country	(n)	(o)
	N				0
	Y	London	England	6	00
					1
					2
					3
					4
					5

Items G - I

Please enter the information requested.

Item J: Certification

Please enter the name and telephone number of the person to contact in the event that we have a question about your report.

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PART III - MODE DEFINITIONS

Parcel delivery/Courier/U.S. Postal Service – Delivery services that carry letters, parcels, packages, and other small shipments that typically weigh less than 100 pounds. Includes bus parcel delivery service.

Private truck – Trucks operated by a temporary or permanent employee of this establishment or the buyer/receiver of the shipment.

For-hire truck – Trucks that carry freight for a fee collected from the shipper, recipient of the shipment, or an arranger of the transportation.

Railroad - Any common carrier or private railroad.

Shallow draft vessel – Barges, ships, or ferries operating primarily on rivers and canals; in harbors, the Great Lakes, the Saint Lawrence Seaway; the Intracoastal Waterway, the Inside Passage to Alaska, major bays and inlets; or in the ocean close to the shoreline.

Deep draft vessel – Barges, ships, or ferries operating primarily in the open ocean. Shipping on the Great Lakes and the Saint Lawrence Seaway is classified with shallow draft vesels.

Pipeline – Movements of oil, petroleum, gas, slurry, etc. through pipelines that extend to other establishments or locations beyond the shipper's establishment. Aqueducts for the movement of water are not included.

Air – Commercial or private aircraft, and all air service for shipments that typically weigh more than 100 pounds. Includes air freight and air express.

Other mode - Any mode not listed above.

Unknown – The shipment was not carried by a parcel delivery/courier/U.S. Postal service, and you cannot determine what mode of transportation is used.

Note: Commodities that are "shipped" under their own power, such as boats, barges, ferries, ships, aircraft, trucks, and trains **should be classified with the appropriate mode above.** Commodities shipped under their own power for which an appropriate mode is not listed (e.g., buses, recreational vehicles) should be listed as "**other" mode.**

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PART IV -- STATE ABBREVIATION LIST

State	Abbrev.	State	Abbrev.
Alabama	AL	Montana	MT
Alaska	AK	Nebraska	NE
Arizona	AZ	Nevada	NV
Arkansas	AR	New Hampshire	NH
California	CA	New Jersey	NJ
Colorado	СО	New Mexico	NM
Connecticut	СТ	New York	NY
Delaware	DE	North Carolina	NC
Dist. of Col.	DC	North Dakota	ND
Florida	FL	Ohio	ОН
Georgia	GA	Oklahoma	OK
Hawaii	HI	Oregon	OR
ldaho	ID	Pennsylvania	PA
Illinois	IL	Rhode Island	RI
Indiana	IN	South Carolina	SC
lowa	IA	South Dakota	SD
Kansas	KS	Tennessee	TN
Kentucky	KY	Texas	TX
Louisiana	LA	Utah	UT
Maine	ME	Vermont	VT
Maryland	MD	Virginia	VA
Massachusetts	MA	Washington	WA
Michigan	MI	West Virginia	WV
Minnesota	MN	Wisconsin	WI
Mississippi	MS	Wyoming	WY
Missouri	MO		

NOTICE - We estimate that it will take an average of 2 hours to complete this form. This includes time to read instructions, assemble and review information, and record answers on the form. If you have any comments regarding this estimate or any other aspect of this survey, send them to the Associate Director for Administration, Attn: Paperwork Reduction Project 0607-0189, Room 3104, Federal Building 3, Bureau of the Census, Washington, DC 20233-0001. Respondents are not required to respond to any information collection unless it displays a valid approval number in the top right corner on the front of the questionnaire.

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